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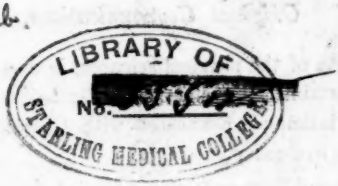

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PART FIRST.

ORIGINAL COMMUNICATIONS.

ART. I.— *On some of the connections of the Medical and Physical Sciences.* A Paper read before the Cincinnati Medical Society, on Tuesday evening, January 6, 1852. By JOHN LOCKE, M. D., Professor of Chemistry in the Medical College of Ohio.

MR. CHAIRMAN: On the Continent of Europe, the term Physical Science is applied, almost exclusively, to mean the Natural Sciences, while Medicine and Medical take the place of Physic and Physical, as used by us to relate to the cure of diseases. It is entirely unnecessary for me to say to this Society of studious and experienced professional men, that there is a connection between Physical and Medical Science. They are already aware that the science of Medicine is, in a good degree, the perfected result of all the physical and ethical sciences combined, for the relief of pain, the cure of disease, and the promotion of the happiness of the human family.*

* Notwithstanding the obviousness of this proposition, Prof. DRAKE, who was present at the meeting, and who had for so many years been the advocate for the cultivation of the physical sciences as a means of promoting that of Medicine, informed the author that he had been opposed in this even by professors and teachers of Medicine.

Chemistry, one of the physical sciences, is a conspicuous branch of every well established system of medical education; and Natural History, so intimately connected with Chemistry, has scarcely an inferior claim to a conspicuous place.

Mathematics, and Mathematical Mechanics, have a more important application than most Medical Students are apprised of. The human system is a machine, combining the elements of all the mechanical powers, such as the lever and the inclined plane, of which the pulley, the wheel and axle, the screw and the wedge, are mere modifications. Acting on these, the muscles, by origin and attachment, are powers, and the executions done are the weights. These circumstances give rise to all of the equations and calculations to which such quantities are known to be subject. Again, there are few motions of the human body which are not the result of forces obliquely applied; and again, not of single forces, but of numbers of forces acting all in several independent directions. This calls for an application of the laws of the composition and resolution of forces generally.

Still further, most of these forces are varying during the time of their action, and continually changing the relations of the components of momentum, viz: weight and velocity. Then the higher powers of Mathematics, are called into requisition, and analysis and fluxionary calculations can alone meet the conditions. I shall, in the course of this paper refer to an example of an anatomico-mathematical problem.

Modern chemistry is a mathematical science, and, by means of the chemical equivalent numbers, is subject to the rules of proportion and the exactitude of equations. The literal equations by symbols, by which chemical transformations are presented in analytical and atomic accuracy to the eye, are so beautiful, so concise, so instructive, that they are destined to be the universal language of chemistry, of pharmacy, and of physiology, and that medical student who neglects to familiarize himself with them, will presently find the ordinary text books put forth in a language as illegible to him as the characters on a Chinese tea chest.

The beautiful apostrophe of Solomon is now seen as a prophecy, and the words "Thou hast ordered all things in measure, in number, and in weight," should be read as having a special meaning, and should be studied by the medical student until he can compare those sacred measures, these wonderful numbers, and these heaven-adjus-

ted weights, as if he were dealing with high and mighty things, on which the attribute of perfection is stamped as a seal.

Such now is the mathematical perfection of chemical science that we not only analyze and compose by equations, but we administer antidotes, and we may almost say that we furnish nutriment, with special reference to its equivalent assimilation, by special organs, and for specific purposes.

For example, in the pharmaceutic preparation of Precipitated Carbonate of Iron we have the following mathematical ratios:

As the equivalent number of Bicarb. Soda 76; any Quant. 16lbs of the same, so is the equivalent number of Protosulphate of iron 90 to 19 lbs. the mass necesary for composition. Or the same thing may be expressed in an equation; thus: Let A and B be two substances which are to be used for mutual decomposition; then the equivalent number of A multiplied into the proposed mass of B will be equal to the equivalent number of B multiplied into the corresponding mass of A.

I scarcely need allude to the Pneumatic principles of respiration, or to the Hydrostatic and Hydraulic principles of the vascular system.

An investigation of no small interest has grown out of the circumstances of cerebral circulation in relation to hydrostatical or mechanical compression. It is a well known physiological fact that if a considerable portion of the cranium be removed, and compression be applied to the unprotected brain, stupor is produced. The same effect is produced by compression resulting from fracture and depression, or from extravasation of blood or serum within the cavity of the cranium. The question may be asked, is that effect produced by mere pressure, causing stress and counter stress of the brain? If that be the case, then any increase of pressure over the whole soft surface of the body would cause the stupor; for, by the principles of hydrostatics, a confined fluid, as the blood in the vascular system, cannot be pressed upon in one place without an extension of that pressure to all other points with which that fluid is in contact. By this increase of pressure on the soft parts the blood would be forced interiorly into the brain until the mutual reaction between the blood interiorly and of the skull exteriorly would equal the increased external pressure. This effect might be produced by universal bandaging, or it would be more perfectly produced by descending in a diving bell. At the depth of thirty-four feet, the pres-

sure over the whole surface would be doubled, and the stress and counter stress on the brain would be increased to 15lb on every square inch of its surface. If the diver descend deeper, then the pressure will be increased, at the same rate, 15lb to every 33 or 34 feet of depth, and the brain will be pinched between its blood vessels and the skull at the same rate. Does this produce insensibility? By no means. The history of diving bells gives no instances of such effects, mentioning, as the only inconvenience of descending to the depth of 60 feet, a pain in the ears, which ceased after a little, the air finding its way into the Eustachian tube.

It seems then that the insensibility produced by compression is not caused by pressure and counter pressure, but it is caused by such a pressure as will diminish the bulk of the brain by expelling from it the circulating fluids, and producing partial inanition of the vascular system. It is well known how momentarily the brain is dependent on the function of its capillary system, and that the blood must not only circulate in that system, but that the blood thus circulating must be of the proper quality; it must be oxygenated, arterialized, or the consequences may be not only a suspension of the cerebral functions, but an irreparable injury, resulting in death. It seems that the human frame is so constituted in this particular of the cerebral circulation, that it will bear all the vicissitudes of pressure to which caprice or whims may subject it—even one half an atmosphere, or 7½lbs. to the square inch, or 4 atmospheres or 60 lbs.; because this pressure acts only on the blood, without changing the capacity of the blood vessels, or the quantity of blood contained in them, and acting both upon the arteries and the veins, leaves the capillaries in equilibrio, continually balancing itself.

But a pressure which shall act exteriorly and locally upon the various flexible envelopes of the brain, and thus detrude more or less the circulating fluids, will produce effects instantly perceptible, and effects which, by excess of force or continuance, will prove fatal. The insensibility caused, as the language is, "by compression," is therefore insensibility caused by an interference with the functions of the capillaries, and in no way produced by pressure on the membranes, the cellules, or the fixed constituents of the cerebral mass.

I have presented this as one of the instances of legitimate conclusions drawn from the physical principles of hydrostatics.

Reference has already been made to one instance of anatomico-mechanical reasoning.

Most of the bones of the human body are acted upon as levers of the third class, the fulcrum being at one end, as the elbow, the weight at the other, (a weight in the hand,) and the power, (the biceps muscle) inserted between. This sort of lever acts to advantage as regards velocity, but to disadvantage as regards power, viz: when the biceps flexor contracts to lift the weight in the hand, it must necessarily exert more force than the weight lifted, but it lifts the weight with greater velocity than itself moves with. In this case as in levers generally, the equilibrium takes place when wt. X into vel. = P. X vel.; or, substituting two quantities proportional to the velocities, wt. X distance from elbow = P. X distance from the same fulcrum, viz: the elbow.

But there is an instance of a lever of the second class having the fulcrum at one end, the power at the other, and the weight to be lifted between them. This lever is the foot, in which the toes, resting on the floor, are the fulcrum; the tendo Achillis, acted on by the gastrocnemius, the power, and the weight of the body resting on the ankle-joint, the weight to be raised.

It would seem at first view as if the calculations on this lever were very easy, and the tendo Achilles acted to great advantage, exerting itself with a force less than the weight of the body to be lifted, as 7 is to 9—9 being the distance from the toe to the heel, and 7 the distance from the toe to the ankle. All this would be true if the gastrocnemius had its origin at some fixed point extraneous to the body. But the origin of that muscle being on the femur, when it contracts to draw up the heel and thus to lift the body, it exerts the same force upon the leg, to pull it down upon the ankle joint. In this operation it counteracts its own exertions, in a degree, like a man attempting to lift himself by pulling at his own bootstraps, as a student of the M. C. O. has expressed it in his thesis.

To reduce this problem, and to find the force which the tendo Achilles exerts to raise a man weighing 200 lbs. on tiptoe requires a very neat simple equation.

Let x = the unknown force of the tendon. Then multiplying that force into the distance from the fulcrum, (9 inches,) we have one side of the equation, $=9x$. The other side of the equation will be the weight of the man. (200lbs.) and added to that weight the downward or reacting pull of the gastrocnemius $=x$, or $200+x$.

This compound quantity multipled by its distance from the fulcrum, (7 inches,) will be the other side of the equation:

$$\begin{aligned} \text{Thus: } 9\,x &= (1400 + 7x) \\ 9\,x &= 1400 + 7x \\ 9\,x - 7\,x &= 1400 \\ 2\,x &= 1400 \\ x &= 700 \end{aligned}$$

An active young man would hop on one foot and spring up three feet by this lever. Now it takes the same force to throw a body upward to a certain distance as it does to stop the same body when it has fallen back again through the same distance. The exertion on the tendon of the heel would then be the same as to tie 700lb to a rope, fasten it with a slack of three feet and letting it drop to fetch up suddenly when that rope is straight. This is no trifling force, and no wonder the cord is sometimes snapped by violent exertion. But how beautiful is the elastic spring of this tiptoe vaulting, and how softened and modified is the alighting again upon the springing arch of the foot—the muscle letting the body down as if it had alighted on a cushion of India-rubber. The same student to whom I have alluded, uses the happy phrase, that the mechanism above described constitutes a machine "which lifts itself."

We come next to a field of Physico-Medical investigation, which, although the first steps are clear enough, still extends remotely into the shadowy confines of human investigation, there in blue distance exciting the imagination with wonderful pictures, and inviting the pioneer to explorations of realization. I mean the subject of polarization and molecular action.

By polarization, is meant a property which substances acquire parallel to some given axis differing from the properties parallel to any other axis. The polarization may be such that one end or pole may differ essentially from the other, as in the magnet, in which we have a north pole at one end, and a south pole at the other; or in the tourmaline, in which we have, by heat, an electro-positive pole at one end and an electro-negative pole at the other. But we may also conceive a polarity to be such that the two ends of the axis shall have the same properties; and such is supposed to be the polarization of light, in which the axis is transverse to the beam giving to it a *right* hand and a left hand *side*, which, although they are alike, yet they differ from the upper and lower sides. Indeed, we can actually make a steel magnet

which shall have a similar pole at each end, with a common opposite pole in the middle.

MOLECULAR ACTION, is a term signifying a change occasioned by action of the ultimate particles of bodies. Atomic changes take place either by combination of different kinds of atoms with each other, giving rise to all the wonderful results of chemical science, or by some change of the homogeneous atoms of the same substance, by which it acquires, loses, or changes, polarity. Temporary properties may also be acquired by undulation or vibration of the ultimate atoms. The properties of bodies are the result of their molecular condition.

Molecular changes are the cause of polarity. Hold an iron bar in the line of the magnetic dip, and it becomes a magnet which, in this latitude, will have the north pole downward. Call this lower end A, and the upper end B. Invert the bar, and instantly the polarity will be inverted—the end A, which had been the north pole, becoming the south pole, presenting again the lower end of the bar as a north pole. Now, a magnet may be cut transversely into several pieces, and each piece will still be a magnet. If this subdivision may be carried to its ultimate, then each ultimate atom would be a magnet, having an axis and poles. If this be the case, and the axis and poles of each atom be permanent, then the inversion of the polarity of the bar of iron implies a semi-rotation of each ultimate atom. Nor is this view at all inconsistent with a rational theory of the atomic condition of a *solid* body like iron, in which the ultimate particles are supposed not to be in actual contact, but only to be held within a fixed distance by cohesive attraction, that distance varying a little with the temperature. Each atom may therefore be supposed to be free to rotate either continuously or temporarily. There are good reasons to suppose that, in a magnetized body, the molecules are in a state of rotation, each about its own axis, and each with its axis parallel to the axes of others. This rotation may be either dextrorsal or sinistrorsal, and a change from the one direction of rotation to the other, would account for the reversals of polarity. The difference between a magnetic and a non-magnetic condition, may be caused either by quiescence of the molecules in the one case, and active rotation in the other. Or, if we suppose rapid rotation to be inseparable from the atoms, and that they are incapable of a state of rest, then the non-magnetic condition of a body would imply a rota-

tion destitute of parallelism, either with reference to position of axes, or direction of rotation.

When that molecular change takes place which magnetises a body, demagnetises the same, or causes reversal of polarity, we should naturally expect, at the instant of change, some strong developments. These do not fail to occur; for, if the magnet be surrounded by a suitable helix of insulated wire, an electric shock darts through that wire at every change of magnetic condition.

Here magnetism and electricity are co-related, and may act mutually as cause and effect to each other.

In a helix-bound bar of iron, a current of electricity, in the helix, will cause magnetism in the bar; and magnetism introduced into the bar, will cause electricity in the helix. Heat is, in a similar manner co-related both to magnetism and to electricity.

The above theory of rotation of atoms, grows out of the fact that a current of electricity, rotating vortically around a bar of iron, developes the strongest magnetism; and, if the vortex be changed in its direction, then the polarity will be changed, as in the common electro-magnet. Prof. Page constructed a massive helix of copper fillet, piled several times over itself in repeated layers, and placing it vertically, inserted the end of an iron cylinder weighing 500 lbs. into the lower end of it. On sending a strong current of electricity through the helix, this massive bar was caught up and held vibrating, freely suspended in the axis of the coil, balanced in air, and touching no solid substance.* Such is the force of mutual molecular action. Indeed we must look to molecular or atomic action as the cause of every physical force. Winds in the atmosphere, currents of rivers, waves of the sea, the tossings of volcanoes, and the miniature powers of art, such as the force of gunpowder, and the power of steam, owe their activity, either immediately or remotely, to the ultimate molecules of the substances concerned; not merely as those molecules are essential to the existence of the substances, but to the changes, the motions, the functional activity, which by them are ever being performed. We talk of "brute, dead, inert matter." There is no such thing in the universe; every atom

*Although such was the effect on iron, yet, when a living man was substituted for the bar, by being placed in this whirlpool of electricity, no perceptible physical or physiological effect was perceived.

is alive and performing active functions. In a mass of animal putrefaction, the atoms are dissolving old combinations and forming new ones, to move off in several directions for the purpose of building up new creations.

The principles of what is called in physical science, INDUCTION, may be applied to account for physiological phenomena. By induction, is meant a molecular effect produced apparently at a distance from the cause. Thus the electricity in the helix which lifted the mass of iron in Prof. Page's experiment, operated on the iron by induction; for the helix did not, or need not, touch the iron which is lifted. If a glass tube be rubbed with amalgamated leather, it will produce divergence in the leaf of a gold leaf electrometer at the distance of 20 feet, and that too, whether the electrometer be suspended in a vacuum, placed on a table in the open air, or be enclosed in a globe of glass. Thus the inductive influence seems not to be varied by the interposition of either vacancy or the most dense medium. Now, as "matter cannot act where it is not"—cannot be in one place and act in another, without a continuous medium, we infer that these inductive influences have some unknown subtile ether through which they manifest themselves.

[Here the author of the paper made some experiments showing the inversion of polarity of an iron bar, by inverting its position in the line of the magnetic dip. He also gave a brief definition of the polarization of Light, and showed several experiments of polarization, both by reflection and transmission. He also observed that light, by being reflected from certain bodies, carries with it certain properties to any distance, and thus becomes a medium, to a limited extent, of transmission of the qualities of the bodies it has impinged upon.]

It will be anticipated that these allusions have a bearing on the phenomena of the functions of the nervous system in animals.

It appears, in physical science, that the great polarizing power holding a supreme control over molecular action, is electricity, especially in the modification called galvanic or voltaic. Without dwelling upon the innumerable instances of this, in lifeless matter, permit me to point at once to its physiological relations.

Animal bodies, by virtue of the water which they contain, are conductors of galvanism, which, in its course through a living animal, produces a great variety of effects, according to its intensity. All of the five senses are affected. A single filing of zinc, and a corresponding one of silver, gold or platinum, in the mouth, produce gal-

vanic taste; very small elements produce the sensation of flashes from the eyes. Smell and hearing may also be modified, and the common sensation of feeling can be excited to the most intolerable pain, or even beyond pain to an overpowering insensibility, paralysis, or even to death itself.

Not only is the living body a conductor of galvanism, with strongly marked phenomena; but in many, if not in all animals, there is a physiological source and fountain of galvanism—a physiological battery, which, in the electrical fishes, is intimately connected with the nervous system, and is under the control of the volition of the animal, being charged and discharged at his pleasure.

Galvanism, too, is capable of rousing the last traces of vitality in an animal recently killed. Spasms being excited by slight currents, even the atmospheric air, acting upon the subcutaneous muscles of a beef recently deprived of its skin, throws them into continued spasms. All these things suggest the conclusion that all the physiological developments of animals—in other words, the phenomena of life, of vital action, may be the result of modified galvanic action. Indeed the electro-chemical view of Davy, which has never been subverted, seems to settle this question conclusively, as it regards the fact of continued physiological galvanic action. According to Davy's view, there is no chemical action unaccompanied by electrical action. Every day's investigation confirms more and more the view that the transformations continually going on in animals, are decidedly chemical — that arterialization, digestion, assimilation, sanguification, secretion, excretion, &c. &c., are chemical actions modified by the incomprehensible apparatus in which they are performed. We have the evidence that these actions are chemical, in the fact that the transformations are all performed definitely, according to the laws of chemical equivalency.

It follows then, according to the Davian theory, that, inasmuch as the actions are chemical, they are also galvanic.

It is not without good reasons that the nerves have been supposed to be conductors of galvanic currents; and the experiment of Wilson Philip, by which he substituted a galvanic battery for the brain, and made it perform in a single instance an equivalent function, goes very decidedly to confirm this view.

All the circumstances above alluded to, have not failed to call forth all the ingenuity of physical research to obtain direct evidence of an actual physiological current of electricity in various parts of

the body and especially in the nerves. The most delicate galvanometers have been connected with animals, completing various circuits, as with muscle and nerve, and the animal has been put to a variety of exertions—the muscles have been caused to contract violently, and the nerves have been waked up to their strongest sensibilities by torture, even by actual cautery, still no positive evidence of such currents has been obtained, independent of chemical action at the contacts.

That we have not detected the currents of electricity in the bodies of animals, does not prove their non-existence; for electricity is subject to such wonderful modifications, by the conditions of quantity and intensity, that we know it sometimes exists, and still is inappreciable by even the most delicate electroscopes.

MATTEUCI, the philosopher of Pisa, in Italy, has investigated the subject of physiological electricity with more delicate means and with more success than any other experimenter of modern times. Some of the positive results obtained by him are of the highest practical value. None are more so than the distinct classes of effects produced by what he terms the direct and the inverse currents, produced by battery power, conducted through a living animal.

The current is said to be direct when the positive pole of the battery is placed over the spine, or nervous centre, and the negative over the ramifications of the nerve. The reverse position gives the inverse current.

I prefer the terms centrifugal and centripetal currents—centrifugal, when it flows from the brain or spine towards the extremities, and centripetal, when the course is reversed, viz: from the extremities towards the centre.

The great principle which Matteuci has established, is this:

That a centripetal current increases the excitability of the nerves, and causes a nerve along which such current acts, to be more active in its functions after the electrization than it was before; and that the centrifugal current exhausts and diminishes nervous excitability; as if the current carried nervous excitability with it, accumulating it centripetally, or dispersing it centrifugally.

The practical application of this knowledge is evident. In diseases of loss or diminution of nervous power, as in paralysis, centripetal electrization should be resorted to until nervous power or excitability should be accumulated.

On the other hand, where there is an unhealthy increase of nervous power, as in tetanus, hydrophobia, convulsions, epilepsy, neu-

ralgia, centrifugal electrization, is indicated in order to disperse the excitability and induce a comparatively exhausted condition of the nerves. The common electrome is unfit for these purposes, because it causes the current to be vibrated first in one direction and then in the other with great rapidity. But one of those machines, with a rheotome, might be useful.

Matteuci arrived at these conclusions inductively, by a variety of experiments. In one case he cut off the hinder legs of a frog, without separating them, leaving a portion of the spine and pelvis still to connect them. He then connected the positive pole of the battery with one foot and the negative pole with the other, thus passing a current of electricity up one leg and down the other. Such a current would be centripetal in one leg and centrifugal in the other. The result was that the leg with the centrifugal current became exhausted in a few minutes and ceased to contract on breaking the circuit; but the leg with the centripetal current continued to be susceptible much longer, for hours even.

If two separate legs of the same frog be experimented upon, the one centripetally and the other centrifugally, the last (centrifugal) will be exhausted in twenty minutes, and will cease to contract while the first (centripetal) will contract as vigorously as at first, even after the lapse of three hours. So much was the excitability of the limb centripetally treated, accumulated, that after the circuit was broken a spasm ensued and the limb drew itself up in the manner of tetanus, and remained in this spasmodic cramp for several seconds.

Matteuci found that in some cases when a centripetal current was transmitted along a sensory nerve, producing pain, there would be a consequent reflex current along a motor nerve, producing spasms.

The field which I have here opened is a wide one; too wide to be even generally glanced at in the limited time allowed for a single paper. So far, I have presented to your view what is received as unquestionable science. I ask to be indulged in a few speculative suggestions, rendered plausible or even probable by the subjects just now discussed.

The consistence of the nervous system, including the brain, the spinal cord and the trunk of the nerves, is that of a soft solid, extremely susceptible of molecular impressions and of polarized changes. The direct, distinct and isolated course which the nerves pursue from one functionary point to another, is indicative of conductors of undulatory action in an elastic medium, and of an action

propagated continuously and rapidly without any actual current or transportation of any material substance whatsoever, the movement being merely undulatory. It seems not unphilosophical to suppose then, that the functions of the nervous system are performed by the magic powers of molecular influence ; that when an agent impresses our senses, that impression consists in an indescribable molecular action borrowed primarily from the impressing agent, and propagated continuously from the sense to the brain; and that voluntary intelligence in a like manner exerts itself as a cause of a special molecular action, which is in a similar manner transmitted to the organs of motion, exciting such contractions and relaxations as may be predetermined at the prime impulse. It is not pretended that this molecular or polarizing action is galvanic, but it is something analogous to that.

In confirmation of these views, we have several intimations from transcendental or microscopic anatomy. My attention was drawn to some of these points, a few weeks since, by Professor Carter, of Columbus.

Although familiar with the physical doctrines of molecular action, both by combination and polarization, yet the application of these elements to the solution of physiological phenomena, was first suggested to me by Dr. Carter, in a very brief conversation. He it was who drew my attention to the structure of the Pacinian bodies and to the investment of the nerve by the white substance of Schwan, in some parts, and its destitution of it in others. It is to be hoped he will publish his views on the subject.

It is known that the ultimate fibre of the trunk of a nerve consists of a concentric or tubular structure. "It is distinctly tubular, being composed of an external membranous sheath, within which the peculari nervous matter is contained."—(Carpenter, Section 243.) This membranous sheath is double, having a peculiar white lining substance, called the white substance of Schwan, which is present in the general course of the nerve trunk, but is absent from the part where nervous function is to be performed, as in the lips, and is absent also from the Pacinian bodies. The contents of these elementary tubuli, constituting a nerve trunk, are semi-fluid, so soft that they will escape from a cut end, or bulge out from a lateral opening, or separate into knots by being slightly and unequally pinched.—(See Carpenter's Physiology, Section 143, Fig. 113.) The language and terms of description of this essential part of the nervous tubuli, is objec-

tionable, because it gives the erroneous idea that it is a mere line. Carpenter says: "The centre or *axis* of the tube is occupied by a substance which preserves its transparency; and this is the axis cylinder of Rosenthal and Purkinje." The thing is more like an intestinal tube, filled with semi-fluid contents.

The Pacinian bodies are oval or spheroidal organs, having numerous concentric layers, enveloping each other like the coats of an onion. The central cavity of this body is the terminus of a nerve-fibre which enters this fruit-shaped body as if by stem or pedicle, losing at the same time the white substance of Schwan, and terminates in the core. Blood vessels pass also through the pedicle and ramify tortuously amongst the concentric laminæ.—(See Carpenter, section 248, fig. 120.) We cannot contemplate this organ, without the impression that it is an originating or a receiving organ; for it is the origin or the terminus of a nerve-fibre, a kind of little brain. To the structure of this organ, Prof. Carter drew my attention, and suggested its similarity to a Galvanic or rather Voltaic battery, which might originate some kind of undulatory or molecular action. This, with other interesting remarks of his, in a few minutes brisk conversation, was the germ of a part of this paper.

Since writing and reading this paper, I have read an article on the Co-relation of the Physical Sciences, in which there are remarks on the co-relation of Electricity and the Nervous power. The similarity of galvanic electricity and the nervous power did not fail to suggest itself to Galvani himself; and Carpenter, after a brief discussion of the arguments for and against their identity, concludes in the following words: "Hence we may regard them, to use Prof. Grove's term, as closely *co-related*, though not identical." I find, also, the following note, which shows how liable we are to expose ourselves to the charge of plagiarism, where we have not read all that has been published, and where, by the combination of the same elements of knowledge, we arrive at conclusions identical with those of other persons; as two algebraists, by having the same data, would arrive at identical results, though they might pursue different routes in the investigation. In this note, I find the very language which I have used anticipated; such as the terms "*Molecular change*" and "*Polarized state.*" The note is as follows:

"Although, for the sake of convenience, Electricity and nervous power are spoken of here and elsewhere, as actual *entities* or *agents*, travelling along the wires or cords that conduct them, it must not be forgotten that the present tendency of scientific inquiry leads us to

abandon such an idea, in the former case at least; what is commonly termed the *transmission* of electricity being the result of *molecular change*, instantaneously occurring along the whole length of the conducting dody, in virtue of a disturbance, in the *polar* arrangement of its particles, at one extremity, which causes a similar disturbance to manifest itself at the other. Thus if

ab ab ab ab ab ab ab ab

represent the arrangement of the particles, in the condition of equilibrium of quiescence, and this condition be disturbed at one extremity, by the operation of a new attraction upon the first particle *a*, a new arrangement will instantaneously take place throughout: this may be represented by

a ba ba ba ba ba ba ba b

which shows *b* in a free state at the opposite end, ready to exert its influence upon any thing submitted to it. It is probable that in this respect there is an analogy between the Nervous and electrical forces; and that, instead of speaking of the 'transmission of nervous influence' along the nerve, we should describe the change as the production of a 'polar state' in the nervous trunk: as first pointed out by Messrs. Todd & Bowman, (Physiological Anatomy, vol. 1, p. 240.)"

I would remark, on the above illustration, that it may be applied to show the undulations of an elastic medium, as the formation of successive concentric shells, of condensed and rarified substance, caused by a sounding body, propagating themselves as a pebble thrown into a lake propagates circles of waves on the calm surface. Any such illustration of molecular action must necessarily be but an imperfect one; for we may suppose the atoms to be capable of rotations on their axes in all possible directions and with an infinite variety of velocities, capable also of describing small orbits, circular, elliptic, or oscillatory like a pendulum, and these orbits to have their planes in all possible positions, and, finally, we may suppose all possible combinations of all of these conditions, producing an incalculable variety of motion.

With regard to the apparently simple series of *ab, ab,* &c., as above, you may suppose the particles represented by *a* to be stationary, and those represented by *b* to be vibrating in equal times when you will have *ab* at one extreme and *ba* at the other; or you may have the same result from a synchronous vibration of both *a* and *b*, by alternate motions. You may also suppose *a* and *b* to be alternate pendulums, of unequal lengths and oscillating in unequal times in such

manner that when they are started, the *a's* to the right and the *b's* to the left, the combinations shall be continually changing, so as to tax the ingenuity of the mathematician to predict what will be the condition of the series at any given time. There will be *ab* at one point of the series and *ba* at another, at the same moment. Sometimes, again, a given pendulum will be at its lowest point while the two contiguous ones shall both have approached most nearly to it, forming the combination *aba* or *bab*. Finally, this simple arrangement gives rise to all the complications of cycles and epicycles, which we have in astronomy; and the problem of how many vibrations any one pendulum must perform before all of them would come to the original condition of the *a's* to the right and the *b's* to the left, would be similar to that of a conjunction of all the planetary bodies.

But all of our reasonings with regard to the *exact* functions of ultimate particles, although they may be very ingenious and may develope theories which will account tolerably for the phenomena at present known to us, must still be comparatively rude and untruthful in fact.

Thus it seems the nerves have two distinct terminal organs, one for originating an action and the other for receiving it, the one active and the other passive, the brain being capable of both these functions, but through distinct and separate conductors. Through the sensory nerves the brain is acted upon, and through the motor nerves it is itself an originating active agent. The ganglia and the Pacinian bodies are also functional organs, either active or passive. But the connecting trunks are mere conductors from one functional extreme to the other, in the same manner as the larger arteries and veins are mere conductors of the blood, without performing any essential function of the circulation, those essential functions being performed in the extreme ramifications called the capillaries.

The anatomist traces the motor nerves into the muscles, where, instead of losing themselves in extreme subdivision, they appear to return in loops, [as figured in Carpenter, p. 199.] But it has been found, by close microscopic examinations that in some cases the nerves, "at their peripheral terminations, are subdivided into remote fibrillæ, which lose themselves to sight in the tissue to which they are distributed," as in the margin of the lips, where they are destitute of the white substance of Schwan.

It has been suggested that the nerves discoverable in the muscles, are not sufficient to account for the universal contractions of

the muscular fibres, which are supposed to be the result of the commands of volition transmitted through the telegraphic wires of the nervous system. If we regard the nervous influence to be molecular or a species of polarization, it is not necessary that there should be a nerve to every fibre of muscle; for, as in physical science we have inductive action, or in other words, an effect produced at a distance from the apparent cause, as if matter acts where it is not, so in the molecular agency of the nervous system, there may be some universal ether brought into action which shall diminish inversely as the squares of the distances from the exciting cause. The nerve may terminate at a given point A, in a muscle, but it may excite ethereal polarity of an efficient intensity to produce contractions throughout a sphere extending to B. This would be perfectly analogous to the numerous instances of induction witnessed in physical science.

In this speculative view by which the idea of a nervous fluid is substituted by that of an undulating medium, I have but extended and generalised what has already been fully admitted in particular cases. The effects of light, and the difference between light and darkness, are now attributed to the undulations or quiescence of an ethereal medium always present. It follows that vision, or the impression of light on the eye is the effect of corpuscular or molecular vibrations, acting on the retina.

With regard to the analogous sense of hearing, the impression is positively and demonstratively known to be the result of undulation, —not of an imaginary ether, but of a tangible, elastic medium, viz: air. We feel perfectly satisfied that these vibrations of the air are propagated along the auditory nerve to the seat of the mind, and that luminous vibrations are in a similar manner propagated from the retina through the optic nerve to the sensorium commune. In two instances the nervous function is performed through the medium of molecular action. All that the theory which I have suggested proposes, is, the extension of this mode to all the other senses, and to all nervous transmissions whatever.

Thus, Mr. Chairman, instead of the high function of presenting your society with the new results of well directed researches, I have endeavored to acquit myself in the humbler labor of exciting our younger and active members, who have a long life of glorious results before them, to those points of Medico-physical investigation, which are now calling for the talent and ingenuity of the world, with the

hope that they may be induced to embark successfully in the same laudable labors.

It may seem to us that Medical Science has now come to its *ne plus ultra*—that no further improvements are to be made. Be sure that this is not the case. The activity of physical science will open new fields of wonder, and will apply even the simple principles of elementary knowledge to such novel and delightful uses as shall appear as if new agents had been created or discovered. How the simple and almost self evident principles of Acoustics have grown into the beautiful science of Physical Diagnosis—how Chemistry and Pharmacy have become mathematical sciences by the Daltonian discovery of definite proportion—how have the measured strength and concentrated efficiency of remedial agents been advanced by the Pelliterian chemical discovery and manufacture of the vegetable alkaloids. How has life itself been lengthened and felicitated by systematic sanitary regulations, in the removal and destruction of public nuisances—the purification of the air by ventilation, and the general observance of Hygiene, a field in which medical science has more than doubled the obligations it has laid upon society. How has the discovery of the essential agent of burnt sponge in case of scrofulous diseases, removed one of the worst of the opprobia medicorum? How has the substitute of cuticle in the simple article of collodion, simplified the treatment of wounds!—and how have we realized a poetical vision of the waters of Letheon in anæsthetic agents, by which pain and agony are placed under our control! All these things, which are now the half of the whole of medical science, have been added since I received my diploma, and I dare predict as many more will be added in an equal number of years to come.

The profession of Cincinnati have for a long time been celebrated for Bella Medicales, and it is now to be hoped that there will, henceforth, be no contentions, except in the honorable emulation of attaining a full insight into such knowledge as now actually exists, or in elaborating new knowledge by successful research—knowledge which will transmit the name of its discoverer gloriously, to the remotest periods of human existence.

Note.—The Society having requested a copy of the preceding paper for publication, the author expressed his willingness to com-

ply, upon the condition, however, that he obtained the permission of Prof. CARTER, to whom reference has been made in the paper. Application being made, Prof. CARTER very promptly returned the following courteous reply:

COLUMBUS, January 18, 1852.

PROF. LOCKE:

My Dear Sir: I seize the first moment of leisure to thank you for the kind note of the 11th inst. I need hardly assure you that it would afford me much pleasure to read your paper referred to, and that I hope to do so, at least so soon as published. To that publication I can have no possible objection, while I owe you thanks for deeming any suggestion of mine in a casual conversation worthy of your remembrance and acknowledgment.

It is true that the mode of the actions of the various nervous systems has been, among other things, a subject of thought and investigation with me, and at some day, I hope not very far distant, I shall have prepared my views for publication. * * *

Very truly, your obliged,

FRANCIS CARTER.

ART. II.—*Cholera Infantum*, or *Comafromx Exhaustion.* By SAMUEL G. ARMOR, M. D., *Prof. of Pathology and Practice of Medicine in the Medical Department of the Iowa University.*

Observation and reflection having satisfied me that hundreds of little patients annually fall victims to erroneous views of the nature and treatment of Cholera Infantum, is my apology for adding a few suggestions to what has been already ably written in all our standard authorities. I would not assume, however, in thus adding to what has been written, to be the originator of a new pathology or practice. It is my desire merely to add my testimony to the observations of eminent gentlemen of the profession, whose views on this subject I regret are not more generally known and received.

The affection sometimes comes on suddenly without any premonitory symptoms of its approach, thus resembliug the Cholera Morbus of adult life. But it is much more usually gradual in its approaches, advances slowly, and is associated with a previously debilitated state of the system. Healthy, vigorous children of the

country are not so subject to it as more delicate children of the city, nor are well-fed and well-aired children of the country so liable to it as those who have imperfect nourishment, and who inhabit damp, miasmatic, or illy ventilated abodes.

Symptoms, Course, &c.—These vary somewhat in individual cases, and in the several stages of the disease.

First Stage.—The most obvious phenomena in the early stage of the disease, are profuse diarrhœa, the discharges generally of a light or pale yellow or green color, soon followed by extreme irritability of the stomach and violent vomiting. At first the tongue is generally covered with the usual thin white fur, indicative of gastric derangement. In the more advanced, or rather *chronic* stage of the disease, it often presents a dry red or polished appearance.

Soon after the accession of the disease, the feculent or diarrhœal discharges are followed by a colorless, inodorous fluid, sometimes containing small floculi of mucous, and discharged without any apparent effort or pain. Tormina and tenesmus are not, however, at all times absent. This symptom depends upon the inflammatory complication of the large intestines, which cannot be regarded as a frequent lesion in this affection. The food and drink taken by the little patient, pass off rapidly without undergoing any change.

Second Stage.—The symptoms which have been enumerated are soon followed by those of prostration. The infant becomes speedily affected with extreme languor, the countenance becomes pale and contracted, the cheeks cold, the skin blanched, the eyes fixed and sunken, the lids half closed, the pupils unmoved by the approach of light, the voice husky, and the breathing irregular and affected by sighs.

The thirst is now very great, the abdomen more or less tympanitic, and the fauces dry, the latter condition giving rise to another very usual symptom mentioned by authors, namely, "the thrusting the fingers, nay, almost the whole hand, into the back part of the mouth, as if desirous of removing something from the throat."

The patient, if not speedily relieved, soon passes into a stage of complete exhaustion, followed by coma and death.

Pathology, Etiology, &c.—Having enumerated a few of the most prominent symptoms, and their usual order of development, other and more important questions present themselves as to the nature of

the disease and its cause, and upon the proper solution of those, often depends the life or death of the patient.

What relation do the symptoms of the second stage sustain to those of the first? Are the cerebral symptoms proto-pathic or deuto-pathic manifestations? This is the principal object of our inquiry at present, and, as it relates to the question of *cause* and *effect*, its importance must be very apparent. For if the cerebral disease be *primary*, then it demands our *first* attention. If, *secondary*, then, by judicious treatment, it may be anticipated, arrested, and the cause of death thus averted.

Thus it will be seen that our *practice* will be very much influenced by our conceptions of the nature of the disease; for if the coma, which is regarded as the foreshadowing of approaching dissolution in this affection, be in fact the result of *active* cerebral or meningial inflammation, the disease, therefore demands active antiphlogistic treatment. But if it be the result of pre-existing causes of a *debilitating* character, it is a matter of momentous importance that we should enquire into the cause of the debility, and adapt our treatment accordingly.

In the relation of symptoms, it will be remembered that the first indication of the disease is usually diarrhœa, soon followed by profuse watery evacuations, irritability of the stomach, vomiting, &c. Without stopping to enquire into the etiology of the affection, I will simply repeat the common observation, that it is a disease peculiar to the hot summer and fall months, and most exclusively confined to the period of primary dentition. We are led to infer, therefore, without further inquiry, that the disease is, primarily, gastric and abdominal, not cerebral—and if we push our investigations further, we are confirmed in our opinion by the local lesion present. The vessels of the liver, stomach and bowels, are found engorged with blood, and the gall-bladder distended either with a colorless fluid or viscid bile—lesions corresponding with the watery discharges, irritability of the stomach, &c., characteristic of the *first* stage of the disease. It is only in the more advanced stages that we find other lesions of the mucous membrane.

Although I readily admit that, in the early periods of life, and especially during the period of dentition, there is a strong proclivity

to diseases of the brain, so much so that we should never lose sight of this usual complication in *all* infantile diseases—yet I submit that, as a general thing, cerebral symptoms are *secondary* manifestations in Cholera Infantum. Nevertheless, many of our standard and reputable authors incline to a different opinion. Dr. Eberle, in discussing the pathology of the affection, in his excellent treatise on the Diseases of Children, alludes to "the tendency of cerebral irritation, to give rise to inordinate irritability of the stomach and bowels," and is careful in impressing the necessity of "obviating," by cupping and other depletory measures, "the sanguineous congestion of the brain;" thus conveying the impression that it is a disease inflammatory in its origin, and must be treated on the same general principles that we would treat a case of acute hydrocephalus. The suggestions, abstractly considered, are correct, but their misapplication, in the disease under consideration may lead to fatal results.

Varieties.—There are two conditions which give rise to coma as a symptom, as there are, indeed, two forms of hydrocephalus—the one anæmic, the other inflammatory. Dr. Marshal Hall has, I think, very clearly pointed out these conditions, and the resemblance which exists between them. As it occurs in infants, he calls it "an hydrencephaloid affection arising from exhaustion." And that in a large majority of instances of Cholera Infantum, death is occasioned by exhaustion, and in many instances effusion, I have no doubt.

Dr. Hall very justly considers that this condition of the brain is to be distinguished from true inflammatory hydrocephalus "by observing the condition of the countenance, and by tracing the history and causes of the affection." Were these symptoms of meningitis *early* present, such as redness of the face, suffusion of the eyes, an excited or wild expression, painful sensitiveness to light, &c.? If so, we may readily suppose that drowsiness and stupor will soon follow as a result of acute inflammation and effusion. If, however, these symptoms are absent in the early stages, and our patient have suffered from exhausting discharges, the coma manifesting itself in an advanced period of the disease, we will not, as a general thing, err in regarding it as a symptom of exhaustion. Experiments on animals have abundantly demonstrated the effect of small and frequently repeated bleedings, in giving rise to cerebral effusion. The

rapidly diminished momentum of blood in the cerebral vessels, is followed by passive congestion and effusion. And in coma, which follows exhausting discharges from the bowels, the same condition is present, the congestion depending on defective cerebral circulation and consequent deficiency of nervous energy—a fact of the utmost importance in the treatment. "So inveterate," says Dr. Hall, "is the disposition to attribute drowsiness in children to acute congestion of the brain, and to treat it so, that I have seen an infant, four months old, half dead from the diarrhœa, produced by artificial food, and capable of being saved only by cordials, aromatics, and a breast of milk; but because it lay dosing on its nurse's lap, two leeches had been put on the temples, and this by a practitioner of more than average sense and knowledge. I took off the leeches, stopped the bleeding of the bites, and attempted nothing but to restrain the diarrhœa, and get in plenty of nature's nutriment; and, as I succeeded in this, the drowsiness went off and the child revived. If it could have reasoned and spoken, it would have told this practitioner how wrong he was; and one who, from long defect in the organs of nutrition, is reduced so that he has neither flesh on his body, nor blood in his veins, well knows what it is to lay down his head and doze away half the day without any congestion or inflammation of the brain."

Dr. Abercrombie long since observed—"In the last stages of diseases of exhaustion, patients frequently fall into a state resembling coma a considerable time before death, and while the pulse can still be felt distinctly. I have many times seen children lie for a day or two in this kind of stupor, and recover under the use of wine and nourishment. It is often scarcely to be distinguished from the coma which accompanies disease of the brain. It attacks them after some continuance of exhausting diseases, such as tedious or neglected diarrhœa, and the patients lie in a state of insensibility, the pupils dilated, the eyes open and insensible, the face pale and pulse feeble. It differs from syncope by coming on gradually and in continuing a considerable time, perhaps a day or two, and is not like syncope, induced by sudden and temporary causes, but by causes of gradual exhaustion."

In a letter which Dr. Hall received from Dr. Abercrombie, he also observes, "The state of infants which I have referred to, is a state

of pure coma, scarcely distinguishable, at first sight, from the perfect stupor of the very last stage of hydrocephalus, the child lying with the eyes open, or half open, the pupils dilated, the face pale. It is difficult to describe distinctly the appearance, but it is one which conveys the expression of coma, rather than of sinking; and I remember the first time I met with the affection, the circumstance which arrested my attention, and led me to suppose the disease was not hydrocephalus, the state somewhat different from coma, was finding on further inquiry that it came on *after diarrhœa*, and not with any symptom indicating an affection of the head." It is perhaps needless to multiply testimony on this point. The principle I have been endeavoring to illustrate will be at once recognized by every intelligent pathologist, and I can only regret that its *application* is not more generally made in cases of exhaustion and coma following diarrhœa.

Treatment—*First, Hygienic.*—I have already alluded to the agency of bad hygiene, in the production of this disease. In its treatment, therefore, much depends on the removal of these causes, thereby placing the little patient in the most favorable condition for recovery. It will be remembered that Cholera Infantum usually attacks children of feeble constitutions. It should be a leading indication, therefore, to surround our patient by the most favorable influences promotive of constitutional vigor; and what will contribute to this more than pure air, good nourishment, and cold ablutions frequently applied. Indeed, these may be almost regarded in the light of preventives. How many children suffer from this affection, who are well clothed, well aired, well fed, and daily showered with cold water?

Medical Treatment.—In the early stage of the disease, a leading indication of treatment is to restore the regular action of the liver and skin. To effect this, I have been in the habit of resorting to the usual prescription of minute portions of calomel and ipecac, combined with the compound chalk powder; adding, if necessary to allay pain, a few drops of paregoric, from time to time.

The warm bath is also an important auxiliary—and its effects may be protracted by removing the patient from the bath, and enveloping it in flannels wrung out of warm water. The circulation should be

promoted in the extremities by frequent frictions, and at the same time the head kept constantly cool. If the vomiting continue, warm cataplasms, frequently moistened with spirits of turpentine, should be applied to the epigastrium; or a blister may be applied until it produce rubefaction. I prefer, however, as a local application, frequent fomentations with turpentine.

But I would resort to this treatment for the purpose of restoring suspended secretions, and arresting, if possible, the more formidable secondary symptoms. Of all the lesions in this malady, there is none so much to be dreaded as the lesion of circulation in the brain, and, although a deuto-pathological element in the development, still it is by far the most formidable complication. The brain being a vital organ, its death is rapidly followed by annihilation of all the functions of the body. Hence the prostration as the disease progresses, and the necessity of promptly meeting the symptoms of exhaustion. This is the grand outstanding prominent idea to be cherished, and if we lose sight of it, and suffer ourselves to be betrayed into the idea of active cerebral disease, our patient must surely fall a victim to our indiscretion or ignorance. It is the turning point for life or death. And so strongly am I impressed with its importance, that I should feel loth to yield my patient to the care of an ordinary nurse. The exhausting discharges must be arrested, and the patient's strength maintained. And for this purpose, fresh milk and milk punch should be liberally administered. My rule for administering nourishment, in the form of milk, would be *the capacity of the stomach to appropriate it*—and that as large a quantity as possible may be appropriated, it should be frequently administered in small quantities.

For the purpose of relieving the exhaustion, and at the same time arresting the discharges, we have perhaps no better combination than spiced brandy, to which may be added, from time to time, if necessary, Camph. Tinct. Opii. Kino, or other astringents. The addition of the aromatic Spt. of Ammonia is also valuable by way of relieving the gastric distress and vomiting, and correcting any acidity that may be present.

It is not my intention, however, to detail the *treatment* of Cholera Infantum. This must be adapted to the requirements of individual

cases, and of course left to the judgment and good sense of the practitioner. A far more important question relates to its *Pathology*. If this be wrong, our treatment cannot be right. If it be rational, we can scarcely err in the indications of cure. I will have accomplished, therefore, my desire, if I shall succeed in calling attention to what I am constrained to regard as a frequent pathological error; and if, in so doing, I shall save some little suffering patient from an additional cup, or leech, or cathartic, which would but accelerate its approaching sleep of death.

ART. III.—*Hospitals of Paris. Synopsis of Annual Reports for* 1850. By C. G. COMEGYS, M. D., Professor of Institutes of Medicine, in Miami Medical College.

PROF. HOWARD: I have been slow in redeeming a promise made you a year ago, on the eve of your departure from Paris, as we promenaded the terrace of the Garden at the Luxembourg Palace, enjoying the delight of the ever memorable and glorious scene that surrounded us.

I had the pleasure, afterwards, of forming an acquaintance with M. Blondell, Inspecteur Generale, of the Parisian Hospitals, from whom I received a complete report of all the Hospitals for the year 1850, which was then the latest publication on the subject. It is probable that the report for 1851 is published by this time in Paris.

The report which is before me contains 450 folio pages, exhibiting a mass of accounts, relating to official, moral and medical statistics, that are highly interesting, but any general abstract of which would needlessly burthen your journal. I shall therefore condense some particulars which I hope will prove valuable.

The following is a list of the General and Special Hospitals, and number of beds belonging to each:

GENERAL HOSPITALS.

Hotel Dieu	810
La Charite	494
Sainte Margeurite	353
Saint Antoine	290

Necker	329
Cochin	125
Beaujon	438
Bon Secours	319
Total	3783

SPECIAL HOSPITALS.

St. Louis	825
Enfans Malades	600
Midi, (Male Syphilitic)	320
Lourcine, (Female do)	514
Clinique, for use of the Faculty	120
Maison de Sante	150
Total	2830
In General Hospital	3783
Total in both united	6,613

The following table shows, in the aggregate, 64,283 patients in the medical wards for the year, with a mortality of one in 10–37|100, and an average treatment of 23–56|100 days; In Surgical, 25,741 patients, with a rate of mortality of 1 in 23, and average time of treatment for each 28–46|100 days; Medical and Surgical Wards united, 90,024, and an average rate of death of one in 12–20|100; average number of days to each, 25–18|100:

TABLE, *shewing the population for the year, rate per cent. of deaths, and duration of treatment for the Medical and Surgical Wards, separately, and both united, of each Hospital.*

GENERAL HOSPITALS.	MEDICAL WARDS.			SURGICAL WARDS.			Mortality of Med. & Surg. Wards united.
	Number treated.	Rate of Mortality.	Av'ge days treated.	Number treated.	Rate of Mortality.	Av'ge days treated.	
Hotel Dieu	9,692	1 in 7.39	22.69	3,963	1 in 22.50	21.57	1 in 9.06
Sainte Margeurite	4,493	" 12.27	22.47	779	" 45.25	32.08	" 13.63
La Pitie	9,296	" 11.78	17.40	2,322	" 27.97	26.27	" 13.23
La Charite	5,228	" 7.79	25.54	2,610	" 28.20	20.06	" 10.15
Saint Antoine	3,877	" 11.89	19.59	969	" 18.71	22.68	" 12.68
Necker	2,598	" 8.33	25.56	1,029	" 23.55	30.65	" 10.07
Cochin	1,741	" 15.47	14.96	703	" 14.28	30.75	" 15.09
Beaujon	4,250	" 7.74	22.08	2,295	" 15.85	30.31	" 9.29
Bon Secours	4,587	" 11.81	18.72	1,181	" 28.13	26.49	" 13.34
SPECIAL HOSPITALS.							
St. Louis	5,736	" 38.38	42.51	2,682	" 13.45	23.16	" 23.79
Midi, (Men's Syphilitic)	.....	.....	.....	3,439	" 294.18	32.94	"294.18
Lorcine, (Women's do)	.....	.....	.....	1,538	" 37.44	58.13	" 58.83
Enfans Malades, (Children)	3,756	" 5.67	55.11	603	" 15.05	45.87	" 6.15
Accouchment	5,978	" 19.18	12.06	.....	.....	.....	" 12.06
Clinique — (Hospital for the use of School of Medicine)	2,080	" 23.93	11.59	834	" 16.81	24.01	" 20.43
Maison de Sante	971	" 5.14	19.16	793	" 10.38	29.51	" 6.65
Total	64,283	" 14.37	23.56	25,741	" 23	28.46	" 12.20

On account of its general interest, I will add some statistics of the "Hospices," which are asylums devoted to various purposes:

		Beds.	
Bicetre, for old men,	Indigent	2,320	
	Insane	1,342	
			3,120
Salpetriere, old women	Indigent	3,441	
	Insane	1,342	
			4,783
Men's incurable		512	
Women's do		695	
Menages		782	
La Rochefoucauld		248	
Sainte Perine		182	
Boulard		14	
Brezin		316	
Devillas		39	
Found children and orphans		599	
			3,387
Total Beds			11,290

The population of these Asylums on the 1st of January 1850, amounted to 9,237, and there were admitted during the year 16,-793. The rate of mortality amongst the insane is equal to 1 in 7.84. Amongst the other residents, who are composed of aged persons, and the incurable from the Hospitals, is equal to 1 in 8.

In the Asylum for "found children and orphans," the total of admissions for the year were 3,952, of which number 424 were supposed legitimate, and 3,528 illegitimate.

This hospice has an interior and an exterior department. The interior includes all appertaining to the hospice in Paris, and the exterior those that are sent to the country to be reared. The average number of the former is about 350, while in the country there were at the close of 1849 over 13,000.

The proportion of patients in the hospitals to the inhabitants of the city is about the same for the past thirty years, showing that in hygienic influences there has been no improvement; at present, however, vast sums are being expended to ærate the city more perfectly, especially the oldest quarters where the streets are narrowed.

In 1817 the number of patients to the population was 1 to 1700
In 1834 ..... 1 to 1220
In 1836 ..... 1 to 1224
In 1841 ..... 1 to 1139
In 1846 ..... 1 to 1210

The report shows, however, that the increasing number is owing to the large number of persons, from the departments of France, as well as neighboring states, availing themselves of the rapid and easy traveling by railroads, come to Paris on account of its celebrity for medical treatment, so that there has been a steady increase of strangers occupying the beds. In 1825 there were 3,034 patients treated, who were strangers to the city, and the number has steadily augmented, so that in 1850 it increased to nearly fourteen thousand, or as one to six.

But happily, and to the glory of medical progress, the rate per cent. of deaths has steadily decreased in every decade since 1805.

In the first period the rate of deaths was as..... 1 to 7
In the second period..... 1 to 7
In the third period..... 1 to 8
In the fourth period..... 1 to 11

and in 1850, as 1 to 12.20; and what renders this statement more satisfactory, is, that the days required in the treatment have also been less. Thus in the

1st period the average was..... 39 days 54|100
2d period..... 59 " 13|100
3d period..... 28 " 82|100
4th period..... 24 " 81|100

The year 1850, which has been given in our first table is at the rate of 25–18|100 days, but as this is as one year in ten, it is not to be taken as any evidence of a longer rate of treatment than formerly.

The statement of the expenses of this vast host of patients will, I think, be interesting:

The mean price per day, for each patient, in 1850, was about 37½ cents; on each patient's care, the service, an average of nine dollars and fifteen cents. The average expenses for 1850 were less than in 1849, although the average rate of treatment was longer, which shows that in the French capital the prices of supplies are not advancing.

In the Asylums, (or Hospices,) and "Maisons de Retraite," the average daily cost of each inmate was near 38 cents, while in 1850 it amounted only to a little more than 30 cents. It would be interesting to make an exhibition of the entire fiscal economy of their establishment, but such a paper would scarcely be adapted to the columns of your journal.

The different results that my tables show in the different hospitals, I am not able exactly to explain. It will be seen that in the Hotel Dieu one in nine die, while in the Cochin, only one in fifteen. In La Charite, again, one in ten die, while in La Pitie, one in fourteen, both of the latter being large hospitals. The Hotel Dieu, from its immediate proximity to the "Bureau Centrale," receives nearly all the worst cases that are presented to this general distributing office, and it is perhaps less salubriously situated. La Charite is also contiguous to the central office, and is in a crowded part of the city. As a general rule, the Hospitals in the margins of the city have less mortality than those in the dense and older parts.

The improvement in the treatment of Syphilitic diseases in the past forty years, is seen in the statistics of the report of the Midi Hospital, which is under the care of our distinguished countryman, Dr. Ricord.

In the first ten years of this period, or say from 1805 to 1815, the deaths were	1 in 56
In the second period, 1815 to 1825	1 in 62
In the third period, 1825 to 1835	1 in 80
In the fourth period, 1835 to 1845	1 in 126
And in 1850	1 in 294

At the "Lourcine," where females are treated exclusively, for syphilis, the rate of deaths is one in fifty-nine. I cannot explain the vast difference unless that women generally delay treatment longer than men, and their systems become involved with other cachexias.

It will be seen that of the 3,952 children left at the Asylum for "Found Children," only 424 were supposed legitimate. This conveys a terrible picture of the morality of Paris, but I found by an examination of the returns of the whole of France, and comparing them with the Registrar General of England, that illegitimacy is nearly the same in both countries. In comparing London and Paris

there is a wide difference, viz: in Paris, about 25 per cent.—in London not quite 4 per cent. The illegitimacy of France is about 6.5 per cent. and of England 7.25 per cent.

PART SECOND.

AMERICAN INTELLIGENCE.

ART. I.—*Report of the action of Cochituate Water on Leaden Pipes, and the Influence of the same on Health.* By JACOB BIGELOW, M. D.

The committee appointed by the Society of Medical Improvement in Boston, for investigating the question of the occurrence of any diseases attributable to the presence of lead in the aqueduct water introduced into the city, from the Cochituate Lake, in January last reported as follows:

That from an extensive inquiry among physicians, and also from the bills of mortality, they are led to believe that the health of the city of Boston has been uncommonly good during the last two years, and they have not learned that any well marked cases of the disease usually attributed to lead, have occurred, which were not traceable to some other cause than the use of Cochituate water drawn from leaden pipes.

It appears, from the experiments of Professor Horsford, that the water of the Schuylkill and Croton rivers, and of Jamaica and Cochituate Lakes, acts upon the surface of the lead so as to take up a small portion of that metal during the first two or three days of its contact. But after a few days the surface of the lead becomes coated with an insoluble compound, which protects the lead, for the most part, from the further action of the water. Nevertheless, traces of lead are reported to have been found by various chemists, in specimens of some of these waters, when greatly reduced by evaporation.

In consequence of the extensive use made of lead for various economical purposes, no person in civilized society can expect to

escape from the reception of that metal in minute quantities into the body. The presence of lead in the paint of dwelling houses and furniture, of water buckets and other culinary apparatus, in vessels made of leaden alloys, or soldered with the same, in the lining of tea-chests, in flint-glass, and the glazing of coarse pottery, furnishes but a part of the examples which indicate our exposure to receive this metal in our daily food. To these examples it may be added, that physicians give lead to their patients sometimes, for weeks successively, and apply solutions and solid compounds of the metal to absorbing surfaces for longer periods; that persons are known to carry shot and bullets in their flesh during a long life; and finally reliable chemists testify that lead exists in the solids and fluids of man, and in those of some of the animals on which he feeds.

From all these facts we are authorized to draw the conclusion that, in the present state of our knowledge, the presence of lead in a very minute amount, like the presence of other substances in infinitessimal quantities, is inoperative upon the living body.

It is a general law known to medical men, and to which there are not many exceptions, that diseases and symptoms produced by specific metallic agents, such as mercury, lead and arsenic, do not cease until after the withdrawal of those agents. But it appears from the records of the Massachusetts General Hospital, during the last twenty years, as well as from the private experience of physicians, that many cases of lead colic and paralysis, acquired by persons who work in that metal, have got well under the daily use of water delivered from leaden pipes. This would not probably have been the case did the water contain any deleterious amount of lead in solution or suspension.

The principal diseases, ascribed by Tanquerel, and some subsequent writers, to the presence of lead, are colic, paralysis, arthralgia, and encephalopathy. Of these the committee have not been able to learn that there has been any sensible increase in this city, since the introduction of Cochituate water. Of lead colic, but one case has entered the hospital during the past two years, which is a smaller proportion than the average of the preceding twenty years. Of lead paralysis there have been but two cases during the same

period, both occurring to workmen in lead. Of arthralgia, or pain in the joints or limbs, directly traceable to lead, it is believed there have not been a sufficient number of cases at any time to attract extensively the notice of our physicians. As to encephalopathy, a general term, used by some writers to express cerebral disease, and including coma, delirium, convulsions, &c., there is apparently no more reason for attributing it to lead, than consumption, fever, or any other common disease which may happen among lead workmen.

It is obvious to a medical reader that many of the cases detailed by writers on lead, are coincidences rather than consequences; and, therefore, do not furnish a ground for general laws. Such is the case when persons have been supposed to have contracted lead diseases by sleeping in newly painted apartments, where, unless the lead were volatile, it could not leave the wall to enter the bodies of the patients. It is also the case when solitary examples of common diseases are ascribed to lead, when it is known that they more frequently result from different causes. It is also often the case when the reports of credulous and incompetent observers are received as scientific authority,

In a late "English Report by the Government Commissioners on the chemical quality of the supply of water to the Metropolis" of London, made in 1850, by Drs. Th. Graham, W. A. Miller, and A. W. Hoffman, men of high standing in the scientific world, an investigation is made of the condition of the various waters now supplied to that city. In this report the commissioners state, (page 32) that "no recent or authenticated case can be cited of any of the numerous towns lately supplied with soft water being affected by the use of leaden distributing tubes." Again, on page 33, the commissioners say: "We are disposed to conclude that the danger from lead in the towns supplied with water has been overrated; and that, with a supply from the water companies, not less frequent than daily, no danger is to be apprehended from the present distributing apparatus, with any supply of moderately soft water which the metropolis is likely to obtain.

On the present occasion it is by no means intended to deny the well known fact that certain acid liquors, also that the water of certain springs and wells, may and do act upon and even dissolve lead in such quantities as to prove injurious to human health. It is also possible that at certain seasons, and under certain circumstanees,

the soft water of lakes and rivers may contain organic or other products, which may take up in solution a minute portion of the pipes through which they pass. And it may even be conceded as possible, that a few susceptible and predisposed persons will get lead diseases while using this water. Nevertheless, lead is a very convenient article to be used in aqueducts. It is more cheaply manufactured, more conveniently applied, and more readily repaired, than any other material. And while this is the case, mankind will not be prevented from employing it. The general law derived from the experience of the large cities of this country and of Europe is, that its employment for the conveyance of soft water is safe. To this law the few recorded cases of disease, as far as they are genuine, must be regarded as exceptions. And it should be borne in mind that nearly all the great agents which minister to the physical happiness and improvement of man, are fraught with more or less danger. Ships and railroads, fire and water, food and medicine, destroy annually multitudes of our species. Nevertheless, all these agents increase annually in use, with the increase of wealth and civilization, and as an humble example under the same law, it is not probable that the leaden aqueduct will be abandoned, on account of the inconsiderable risk which it involves of occasioning disease. From the present state of our knowledge, we are authorized to conclude that the insurance on a citizen of Boston, New York, Philadelphia, or London, against lead colic, is probably worth much less than his insurance would be on a voyage across the Atlantic.—*American Journal of Medical Science.*

Art. II.—*Fellis Bovini, as a Medicine.* By A. Cummings, M. D.

The bile from the gall of the ox has long been known to possess medicinal properties, and to some extent it has been used by the profession as a remedial agent, but I believe it has never gained that confidence among practitioners of which its real value renders it worthy. I have used it somewhat extensively in my practice for a few years past, and in this article I design only to give the result of my own experience with it, and the conclusions to which I have arrived in relation to its real and comparative value. Before proceeding, however, I would remark that the *form* in which I have almost immediately exhibited it, is that of pills, made of the inspissated gall, rolled in flour, magnesia, Pulv. Glychyrriza, or some other fine

powder, to render them of a suitable consistency. The gall may be evaporated in shallow basins, in an oven, or in the sun, until it becomes sufficiently firm to form into pills as above. This, in my opinion is far the best method. It may be given in its liquid form, but it is less agreeable to the patient, and if not mixed with proof spirits will soon become unfit for use. The medical properties of this agent, so far as my observation goes, are *laxative, alterative,* and *slightly tonic.* Its most valuable agency is exerted upon the stomach and liver. It seems to combine, in a remarkable degree, the three properties named above, and for many diseases to which the chylopoietic viscera are liable, I have found it a most excellent and valuable remedy. I proceed now to notice its application as a remedial agent in disease.

1st. *Obstinate Constipation.*—I am well aware that this is much oftener a *symptom* of disease, than disease *per se;* but I notice it in this place in order to speak of it in that form so common to those engaged in sedentary and confined occupations, and especially of females in large cities, amongst whom, for want of proper exercise and care, constipation is so prevalent, and detrimental. In cases of this description, I have seldom, if ever, been disappointed of obtaining relief by the use of the agent under consideration. The hardened, compact, clay-colored fæces so common in cases where there is more or less obstruction of the liver, are, by the use of the gall, broken down in the intestines, and rendered so friable as to be easily discharged. This result is procured, not only by the combination of the gall with the hardened concretions, rendering them soft and unirritating, but also by removing the obstruction, and permitting the natural flow of bile from the gall-bladder into the intestines. Thus it answers, in this respect, a two-fold purpose. Any one who doubts the efficacy of this remedy, by pouring a few drops of fresh gall upon hard clay-colored fæces, and observing how soon the mass becomes liquid, cannot fail to be convinced. It imparts a healthy tone to the bowels, and promotes the natural secretions which may become impaired.

2. In *billious diseases,* arising from a torpid action of the hepatic function, the gall is an excellent remedy. It seems to act as a stimulant to the liver, and promote the secretion of the bile, and also to cause it to flow freely into the bowels, and thus accomplish its normal functions in the animal economy.

3d. In *Jaundice*, you will find that the exhibition of gall, if continued sufficiently long, even in small doses, will not fail to accomplish a desirable and satisfactory purpose. I could relate the history of many cases in my own practice, in which there was every symptom of this disease, where the gall has acted in the most satisfactory manner. As a stimulant to the liver, I generally prefer it to blue pill or mercury in any form, though there may be chronic diseases in which the mercury or some other alterative would be preferable. Whoever, at least, will thoroughly test the powers of this agent, I am confident, will find that I have not exaggerated its value. At least I am willing to abide by the judgment of others who may test it, as to the truth of my assertions. It may be necessary to continue the exhibition of this remedy for some length of time in severe cases of jaundice, but it is perfectly harmless, and moreover it may be used in those cases in which mercury cannot be administered, on account of the prejudice of patients or their friends against it, or of any idiosynocracy of constitution where its use may be interdicted. At least it is a most valuable auxiliary.

4th. In *Dyspepsia*, also, I have in many cases seen the most gratifying results from the use of this remedy. It seems to impart a good tone to the stomach, and by its laxative effects upon the bowels, as well as by its soothing the irritated mucous surfaces of the stomach, proves, in my hands, at least, an excellent remedy. It leaves the influence of a mild tonic bitter on the stomach, not sufficient however, to produce pain, and its laxative effects in dyspepsia cannot be but beneficial, for, in most cases in this disease, the bowels are torpid, and not unfrequently obstinately constipated. As a remedy also collaterally,

5th. In *Hemorrhoids and Prolapsus Ani*, the gall is justly entitled to our consideration and confidence. If it has no direct or specific influence in removing these forms of disease, it is at least one of the best laxatives in the general torpor of the bowels which accompanies them, since it not only evacuates, but soothes the bowels, and does not produce the irritation in piles and prolapsus ani that most other articles of the class do. But I am also inclined, from my experience with the article, to believe that it exerts a very favorable influence, at least, in the *cure* of these troublesome and painful affections. At least it justly merits a fair trial.

6th. In *Billious and Intermittent Fevers*, the gall cannot but exert a favorable influence, since its office is not only to act as an alterative,

and rouse the liver to its wonted action, but also to carry off from the bowels the superabundant bile, and to give tone to the chylopoietic system. In a word, in all those forms of disease, (and they are many,) arising from torpor of the hepatic system, I believe that there are few medicines that will give equal satisfactiou with the one under consideration, and it is certain that no remedy is more safe in its administration and effects.

One more tormenting and dreaded effect arising from billious derangement, in which the gall acts in a very favorable manner, I had almost forgotten to mention.

7th. *Sick Headache,* so called, though not strictly speaking, a disease, is a sympathetic, symptomatic affection, of very frequent occurrence, and always excruciating, and dreaded by those who are subject to it periodically, or occasionally. As it arises from a billious state of the stomach, the gall, given in small doses, and as frequently as is necessary, seldom fails to mitigate the symptoms, or entirely to relieve, or prevent its accession. It should be given in periodical cases for a season of at least a day or two before the anticipated attack.

8th. In *Typhus and Typhoid Fevers,* it is an excellent laxative, where strong cathartics are not required, and will be found worthy of confidence, whenever a remedy of the class seems to be indicated. Also in the low forms of

9th. *Nervous and Continued Fevers,* no better laxative, in my judgment, can be found, since in those cases strong cathartics are almost invariably contra-indicated. But I need not particularize further, since I believe enough has been said to give my ideas in relation to the class of cases in which this remedy is indicated; and as I cannot expect to gain the confidence of practitioners without their first giving the article in question a fair and impartial trial, I have perhaps already written too much. I am confident, however, that those who may make a fair trial of it will not accuse me of exaggeration, for I have endeavored candidly to give the value of the article as it has proved itself in my own practice, and not from theory deduced from the natural properties of the medicine. I have said it is necessary, not unfrequently, to continue the medicine for some length of time, in obstinate cases especially. But it is harmless and safe, and will act well in any constitution, and is contra-indicated by no form of idiosyncracy. The dose of the inspissated gall in the form of pills, or otherwise, is from five to ten grains or

more, repeated every two or three hours, for a cathartic, and less for a mere laxative effect. It may be given in sufficient doses, at any time, with perfect safety to adults or children.—*Boston Med. and Surg. Journal.*

ART. III.—*Tannate of Quinine.* By JOHN P. LITTLE, M. D., *Richmond City.*

In the summer of 1850, I read a short paper before the Medical Society, in which I mentioned some experiments made to remove the bitter and disagreeable taste of quinine. It was attempted to remove this taste by gi ving the medicine dissolved in strong tea.; and I was led to make these experiments by learning that coffee had been used for this purpose in France. The result of this experiment was that the taste was almost entirely removed, and that the injurious effect upon the brain and nervous system, which so commonly result from the use of quinine, did not make their appearance. I learned subsequently, from the experiments of Dr. Thomas, of Baltimore, that it was the tannin contained in tea which produced this loss of bitterness. Having two years past prescribed tannin and quinine in all cases requiring the use of the latter remedy; having found this tannate a more efficient preparation than the sulphate, both in the treatment of intermittents and in neuralgia; ; and having seen none of those peculiar effects upon the head observed ordinarily in the use of this article, I wish to call the attention of the profession to its value. I have by me a number of cases in which benefit has resulted from it employment, where the sulphate had been used without good effect, or where its use could not be borne. One case of intermittent, occurring in a delicate child, in which I had used sulphate of quinine, various vegetable tonics, iron, and finally Fowler's solution, without any other than a temporary effect, yielded to this remedy. In many other cases of neuralgia occurring in very delicate women, where I was assured that quinine had been frequently attempted to be given, and that its use could not be persevered in because of the headache and other severe symptoms that ensued, I have given large quantities of the tannate with happy effect on the disease and without any injurious result. In some very susceptible persons, a slight ringing in the head was perceived, though not complained of, after a large quantity had been taken. My usual mode of administering the remedy is to have it made into

pills, containing two grains of quinine and two of tannin each; or, if the patient is very susceptible to the action of the remedy, three grains of tannin to two of quinine. I prefer it in pill form, because, in solution with so large a proportion of tannin, while the taste of the quinine would disappear, that of the tannin would be very disagreeably perceived. In those cases of neuralgia where quinine and iron are indicated, I have not thought fit to combine quinine, iron and tannin in one pill, but have given on one day as much tannate of quinine alone as I would have given of quinine combined with iron in two days, and on the preceding day have also given as much iron alone as I would have given combined in two days.

This compound of tannin and quinine is also serviceable as an astringent in the dysentery of the season, and can be used as such with good effect. I mention its use, that others may be induced to try it, and that by the observation of many physicians, its claim to notice, as a compound of quinine that can be given without any injurious effect, may be decided upon. My own experience is in its favor.—*Stethoscope and Va. Med. Gaz.*

ART. IV.—*Remarkable Case of Precocity—Menstruation occurring at four years of age.*

WOODVILLE, *Rappahannock Co.*,
July 29th, 1852.

SIR—I send you a succinct account of a case of *Precocity* in a female child, which, if you think of sufficient interest, you can give a place in your Journal.

Respectfully, yours,
CHAS. R. KEMPER.

A servant girl, owned at this time by Mr. C. M. W. of our village, is the subject of a precocious development of the female reproductive organs and appearance of the menses. The development of the general system of this girl, from a year old, was noticed to progress rapidly, till she attained her third year, when an increased size of the mammary glands was first observed, and, shortly after, there appeared the usual growth of hair on the pubes. When she was four years and one month old, her catamenia made their first appearance, and have continued regularly to return up to this date. She is now just entering her thirteenth year.

The development of the brain seems not to have kept pace with the physical growth, but she is possessed of a degree of intelligence unusual for her age. She is much larger than an older sister, and has the appearance, from the breadth of the chest and pelvis, to be a fully developed *woman.—Stethoscope and Va. Medical Journal.*

ART. V.—*On the treatment of Gonorrhœa.* By P. NIDDRIE, M. D., F. R. C. P., EDIN.

The Lancet of a recent date contains a report of a discussion at the Medical Society, on gonorrhœa, in which a speaker said "he questioned how far the cures in cases of gonorrhœa were due to remedies. Time alone would cure." As this seems to be the view of more than one member of the profession, I shall shortly state what I have found to be a safe and effectual mode of treatment, if strictly followed. In common with most men of some standing in the profession, I have had considerable experience in the treatment of gonorrhœa, and I have arrived at the conviction that, in a vast majority of cases, the disease may be safely and effectually cured, generally in three days, and almost always within a week. During the first day, a saline purge, such as a Seidlitz powder, with half an ounce of sulphate of magnesia, is to be given; recumbent rest enjoined; weak linseed tea, with a little nitrate or bitartrate of potash, used as a common drink; and ordinarily pure cold water used as an injection twice in every half hour. During the second day, the same drink to be used, and quiet observed, but a solution of sulphate of zinc, two grains to the ounce, is to be substituted for the cold water, and used twice every half hour during the day. On the third day the irritation and discharge will probably have gone, and it will not be necessary to enforce rest so strictly, but the drink and injection must be used as on the preceding days. These remedies are commonly in use, but their efficacy depends on the mode in which they are applied; and if this method is strictly followed, few unsuccessful cases will occur.

Doubtless there are cases protracted for weeks or even months, but such patients fancy it is too irksome to lie down all day, and it is too much bother to use the injections so often, and they expect to be cured without trouble or restraint. Indeed, there is always diffi-

culty to get the patients to use the injection so frequently and perseveringly as is necessary, but on this the success of the treatment mainly depends. It occasionally happens that on the second day the swelling of the urethral membrane, its irritation and its discharge are not sufficiently allayed, and it is necessary to continue the cold water injections till the third day. More frequently it is necessary to use the sulphate of zinc solution longer than two days, for it must be used at least a day after the discharge has stopped; but it will rarely happen that the whole period of treatment extends to a week.

Whether or not gonorrhœa is a specific disease, there unquestionably exist in it redness, swelling, heat and pain—that is, inflammation, terminating in suppuration; and the antiphlogistic means indicated seem to me a rational treatment of such a state of the parts. But if the inflammatory action only be subdued, disordered action continues in the form of gleet, and it becomes necessary to change the action of the mucous membrane by a slightly stimulating injection of sulphate of zinc. Those of the profession who think the above treatment worth a trial, will perhaps state the result through the medium of the Lancet.—*London Lancet.*

ART. VI.—*Sub-acute Hydrocephalus, terminating in cerebral Dropsy. Operation of Paracentesis Capitis.* By M. HOWARD, M. D.

* * * * The head went on enlarging until it attained an extraordinary size—measuring 23 inches in circumference and 14 inches in a vertical direction, from one auricular orifice to the other. The pressure of the accumulated serum at length produced total blindness, and a partial paralysis of the muscles. The face become contorted, and the extremities hung flaccid and motionless.

It now became apparent that the little sufferer was reduced to great extremity. I abandoned all hope of relieving it with the aid of mere pharmaceutical agents, and intimated to its parents that I was willing to give up the case as a hopeless one. On being urged to further effort, I proposed the operation of puncturing the membranes, as a dernier resort, at the same time warning the family that I had but little faith in its efficacy. The pressure of the enormous accumulation of serosity on the extended membranes and the brain, induced an intolerable amount of suffering, which was indicated by

the constant moaning and restlessness of the child, even in sleep. This painful pressure I could alleviate by decanting off a portion of the fluid, but it was with the risk of accelerating the final issue—*death*. I frankly stated this fact, and warned the family that the operation, though simple, was hazardous, that death might possibly ensue at once, and that the possibility of its effecting a radical cure was too remote to afford much ground for hope—the only certain recommendation in its favor being that it would effect a temporary remission of suffering, if the patient survived it. Notwithstanding these representations, the child's father urged the performance of the operation. The mother, however, had conscientious scruples; he was, therefore, induced to defer submitting his child to the risk, until the sanction of a clergyman, (the relative of the child before alluded to,) could be obtained.

In the meantime I had prepared a close fitting cap of gum elastic, which I purposed to use, to maintain an equal pressure during the evacuation of the serum. I also obtained a minute trocar and canula, the blade of the trocar not being longer than the ordinary couching needle.

Experience has taught us that the principal danger to be apprehended in puncturing the head for cerebral dropsy, is the production of fatal syncope, from the sudden removal of pressure from the brain and its appendages. I therefore had stimulants at hand, and determined to decant the water slowly, watching narrowly, in the meantime, its effect on the pulse.

The trocar was introduced carefully, a little to the right of the inferior angle of the fontanelle, in a perpendicular direction, to avoid the longitudinal sinus. The depth to which the instrument penetrated before the fluid was reached, seemed to favor the belief that the convolutions of the brain had been unfolded by the pressure of the fluid, and lay in a thin layer immediately in contact with the membranes.

Some high European authorities have denounced this operation as cruel and worse than useless, but the result in this case does not sustain this view. The patient suffered very little from the introduction of the trocar, and apparently none at all afterwards. Upon the withdrawal of the trocar, the water was forced for a moment in a violent little stream for several feet, owing to the pressure of the tense membranes. I allowed it to flow freely for several minutes, no symptoms of exhaustion supervening until about twelve

ounces had been withdrawn. Immediately after the operation, the patient sunk into a profound and tranquil slumber, from which she awoke in about five hours, apparently much refreshed.

The most important result of the first tapping, was the removal of the paralysis. The countenance regained its natural expression, and the muscles of the limbs appeared to have become more subject to volition.

To aid the effect of the tapping, I renewed the counter irritation, and the exhibition of alterative medicines. Three days after the first tapping, I drew off about eight ounces of water. After the second operation, long slips of adhesive plaster were passed around the head in various directions, to support the bones, and to assist the action of the elastic bandage. The little patient appeared to be progressing finely. The head was diminished considerably in size, her appetite and command of muscle appeared to increase, and better than all, the retina appeared to be regaining its sensibility. Previous to the first operation, she was totally blind, and the muscles of the eyes appeared to work without concert. Strabismus divergens, and convergens, had occurred at irregular intervals; but now the movement of the eye-balls obeyed the will, and the nerves appeared to have become sensible of external impressions, though the sight was far from being perfect. These happy results encouraged me to attempt too much on the third operation. I decanted the water a little too rapidly, and the patient sunk into profound syncope, from which she was restored with some difficulty. No untoward consequence ensued, but the mother of the child became so terribly alarmed at the effects of the last tapping, that she refused to allow its repetition. In her opinion, the object in view would not have justified the result, if the child had died from the effects of the operation.

I had the satisfaction of finding, however, that no further effusion took place. The head was much reduced in size, and did not subsequently enlarge. She gradually regained a perfect control of the voluntary muscles, and her sufferings from the serous accumulation appeared to be entitely removed, so that she became even playful. Several months after I had removed from the county, I learned from Dr. Wm. Dunham that the child had died from an attack of typhoid fever, (typhoid pneumonia, I think.) Up to the time of her last illness, no change for the worse had taken place in her condition.—*Transylvania Med. Journal.*

ART. VII.—*Poisoning by oil of Tansey.* By W. W. ELY, M. D. *of Rochester, N. Y.*

The subject of the following painful occurrence, was a respectable young lady, in ordinary health, engaged at the time in teaching school. Having arrived at her menstrual period, she procured what she supposed was the essence of tansy, designing to take it to promote the catamenial discharge. On the evening of August 15, 1835, she took *one teaspoonful* of the medicine, which proved to be *oil of tansy.* From the speedy supervention of alarming symptoms, a messenger was sent for me, a distance of two miles. Being unable to attend personally, she was promptly visited by my partner. The oil, however, had operated so energetically and rapidly, that, on his arrival nothing seemed likely to be of any avail, and nothing of any consequence was done.

From the record which I made at the time, it appears that she first complained of dizziness and became insensible in about ten minutes—a succession of convulsions supervened, with frothing at the mouth, laborious respiration and irregular pulse, and she died in *one hour and a quarter* after taking the oil.

It may be proper to add that another young lady in the family, also took of the medicine at the same time, but vomited very soon, and suffered no inconvenience.—*Buffalo Medical Journal.*

ART. VIII.—*Spiritual Writings.*

The extracts under this head, in our last number, occupied more space than we supposed they would, and as a consequence we were not able to conclude what we wished to say in regard to the *spiritual writings*; but our readers need not be alarmed—we shall not weary their patience much longer with our dissertation on this subject.

We have said that there appears to us to be a striking analogy between the condition of the nervous system which leads to these writings, and that which existed in the persons who were affected with the "jerks;" and some further facts which we have now to add, will, we think, render this still more apparent. Thus, while this singular affection was not confined to any class or sex, but men and women, black and white, were its subjects, still it was observed that women were much more apt to fall into it than men; and it was also remarked that those who had once been

seized were particularly liable to a second attack, and jerking or swooning readily became a habit. "Women," it is stated, "had their nerves so weakened by the frequency of these attacks, as to fall while walking to or from the meeting-house, engaged in narrating past exercises without any uncommon emotion, and drop from their horses on the road."

Many instances of this acquired habit of the nervous system are recorded by the writers of that period. Thus, Dr. Clelland, an estimable and pious clergyman, relates that riding one day with a lady, the wife of a Presbyterian elder, who had been some time previously affected with the jerks, it occurred to him to try whether they might not be renewed simply by starting a particular train of ideas in her mind. The conversation just before had been of an indifferent character; he changed it abruptly to devout and solemn subjects, and adds, that "before two minutes had elapsed, her body began to be violently agitated, pitching upward and forward, from the saddle half way to the horse's neck six or eight times in a minute."

There were those who struggled long and earnestly against the disposition to fall, but were forced to yield at last. One fell, after bitterly opposing what was esteemed a "divine work," and another, exclaiming that it was "an unfortunate sight and a great mortification." "One dropped, as if shot, just after expressing his fears that the work was not right." A father threatening his swooning daughters, that he would beat them if they ever came to such a place again, and fell with the words in his mouth. A man fell at Lexington, "who had told an acquaintance if he fell he might put his foot on his neck and keep him down."*

Not only were there these involuntary motions, the result of sympathy, but in many of the subjects there was also the unconsciousness and insensibility presented by the mesmeric state. Persons, to their great surprise, found themselves unable to move when they wished. One young lady is mentioned who was not aware of any change in her condition, and was amazed to find the people flocking around her; but then making an effort to move, she found herself powerless. Some, while in this state, were both conscious and capable of conversing; others were speechless. The most energetic stimulants, as in artificial somnambulism, made no impression upon

*Davidson's History Presbyterian Church in Kentucky.

the sentient nerves. A phial of hartshorn was applied by a clergyman to the nose of a stout young man, who was lying flat on his back, and by accident some got into his nostrils; "but he took not the slightest notice of it."

On one occasion, Lorenzo Dow, while preaching in the court house at Knoxville, Tenn., the Governor of the State being present, saw one hundred and fifty persons exercised with the jerks. At another meeting, where the excitement had risen to a wilder pitch, three thousand persons are reported to have fallen. The influence by which these strange manifestations were induced, as every one must be prepared to learn, was held by the multitude to be supernatural. It was esteemed, as we have said, a divine work, which it was hazardous and sinful to oppose. The subjects were often in an ecstatic state, and had visions and revelations. They saw dazzling light, such as they could not behold. "Two women," says a historian of the times, "have fallen into trances, and one has passed a golden bridge to heaven; the other has been in heaven," &c. &c.

No doubt there were sensible and discreet men, probably physicians, who believed that these people were in communication with the spiritual world. No one believes so now; and yet the "spiritual writers" may be defied to bring out anything more marvellous than the phenomena afforded by the "jerks." These things—mesmerism, the jerks, spiritual writing, all in them that is not fraud and deception—belong, then, in our judgment, to the same category, and have their origin in a peculiar perverted state of the brain. It is a state easily induced in some individuals, while others are capable of resisting it. The subjects of mesmerism are found to be apt spiritual writers, as the believers in clairvoyance are those who yield the readiest credence to its being the work of spirits.

We do not deem it worth while to write against the thing. It *will* have its day. The populace will be carried away with it; some will lose their senses, and commit crimes, or get in mad-houses; and then, after a time,

> "——— all this derision
> Will seem a dream and fruitless vision."

As an apology for the length to which we have extended our remarks upon this subject, we have said, that the miserable superstition has ended, in not a few instances, in deplorable insanity. In this city we already hear of persons that are fully persuaded that

they hold daily converse with the spirits of their departed friends, and one young man is understood to have been impelled to suicide by these spiritual writers. We may not be able to arrest the delusion, but it ought, at least, to be exposed.

[*Western Journal of Medicine and Surgery.*

ART. IX.—*Death while under the influence of Chloroform.*

The following are the particulars, as learned from various and direct sources, of a melancholy case which recently occurred at Hooksett, in this State:

A girl, of about fifteen years of age, had a tumor upon the thigh, which was examined by Dr. Timothy Haynes, of this town, and its removal was advised and strongly urged. After some time the patient consented that it should be done, and a day was fixed for the operation. At the appointed hour Dr. H. arrived, attended by his student; but the patient was so much terrified in the prospect of the operation, and of taking chloroform, that she ran away and hid. After some time she was found, and with a good deal of force was brought to the house and the room, where the operation was to be performed. She entreated to be allowed to go, but still more, that she might not be obliged to inhale the ether; saying that she would bear the pain of the operation, but she knew she should die if they made her breathe it. The doctor, however, insisted upon her taking it, and she was held, and concentrated chloric ether was administered by her uncle, not a physician. An unusually large amount was required before she ceased struggling violently, but finally the operation was commenced, and almost at the same time the patient was found to be exceedingly prostrated. The tumor was removed, and the doctor exerted himself to revive his patient, but in vain; she died in a very few minutes.

We regret that we cannot give the *precise* quantity of ether used and the *precise* time that elapsed between the commencement of the inhalation and the death of the patient—but only one medical man was present, attended by a student, not at all advanced in his studies, and he proposes to "live down," that is, wait till people forget the case, not to report it. The impression of friends in such minutiæ, is perhaps, not perfectly reliable.

In view of these facts, shall we attribute the fatal result to the anæsthetic agent? We say at once, no. The patient was extremely

terrified at the idea of the operation, but was more so at the thought of being rendered insensible. She entreated to be allowed to suffer the pain, reaffirming that she *knew* she should die if she breathed the ether. Under such circumstances, would she not have died if she had inhaled the vapor of water, believing it to be ether? Our own impression is that she would, and fright was in fact the cause of her death.

The errors in this case were, first, that the operator insisted upon the inhalation, or even *consented* to it. In fact, under such circumstances almost any man would have deferred the operation to a subsequent day, (there being no immediate danger to life from the tumor,) and then proceeded without placing the patient in a state of anæsthesia.

Second, that he allowed it to be administered by an unprofessional person, not at all acquainted with its use. An agent so powerful should be used with the greatest caution and skill, and no one should operate without placing the patient under the charge of a reliable physician, so far as this is concerned. The operator should be at liberty to devote all his attention to the operation, and not be distracted by watching the influence of the anæsthetic.

We regret that by this case discredit has been cast upon a most useful agent, and difficulties thrown in the way of its use. The following sentence from Professor Gilman's preface to Beck's Materia Medica, exactly expresses our views of the use of anæsthetics:

"Used with constant care, watched with unceasing vigilance, they are safe and most beneficent agents;—used rashly and thoughtlessly, they are so dangerous, so almost certainly fatal to life, that such use of them involves, in my judgment, an amount of moral guilt little short of that which attaches to manslaughter."—*New Hampshire Journal of Medicine.*

ART. X.—SPENCER'S *Objectives for Microscopes.*

The pre-eminent success of Chas. A. Spencer, residing in Canastota, Madison county, New York, in manufacturing objectives for microscopes, deserves a notice in this place. It is now fairly conceded that Spencer, though an American, has considerably excelled the best English and European opticians in the most difficult department of practical optics. The American Association for the Ad-

vancement of Science, has given him this award, and English microscopists have borne testimony to the same effect.

The preceding observations were made with a glass of exquisite workmanship, one of Spencer's latest and best productions. I gave him an order for the finest objective of high power which he could make, expressly without limit as to price. He sent me the instrument [the essential parts of which the smallest thimble would contain] in May, 1852, writing me at the same time that it was the best he had ever made, and charging me for it the moderate sum, $129, for its defining power is so great and so wonderfully accurate, that a sum of money greater than I choose to name, would not deprive me of its possession. It is rated by Spencer as one-sixteenth of an inch focus, though the available working focal distance is probably less than 1–200th of an inch, requiring the very thinnest of Chance's thin glass, for covering objects to be seen. Its angle of aperture is full 174° ! a figure at least forty units beyond what the best European opticians have, until quite lately, considered practicable. Upon this, as well as upon the general perfection of workmanship, its great excellence depends. That most beautiful test object, the Grammatophora subtilissima, of Bailey, is, by this glass, readily and clearly resolved into black beaded lines.—*Dr. J. L. Riddell, in New Orleans Med. and Surg. Journal.*

ART. XI.—HEISTER'S *Treatment of Scarlatina.*

In the Boston Medical and Surgical Journal is an article by John P. Heister, M. D., of Reading, on the medical topography of Berk's County, Pa., in which he thus speaks of the treatment of seventy-two cases of Scarlatina, which fell under his observation during the past year. "The whole seventy-two cases were treated by laxatives when required, which was usually at the commencement, and the unrestrained use of hydrochloric acid, diluted with water and sweetened, except one case in which bronchitic symptoms were prominent, and antimonials were used. From fifteen to twenty drops of the acid were directed to be put into a half pint of water at the temperature of the chamber, well sweetened with white sugar, and allowed *ad libitum*. It was commonly very grateful to the patient, and taken with decided pleasure. No other general treatment was resorted to from first to last. From a good deal of previous expe-

rience in the treatment of fatal disease, I was seriously impressed with the evil of the *nimia diligentia medicinæ*, and at first resorted to the use of the hydrochloric acid rather as an abatement of this evil than from any great confidence in its virtues. Skeptical as I am, however, in medicine, I am, from my late experience, forced to attribute very considerable efficacy to it in the treatment of scarlatina. I by no means, however, consider it a specific, to be relied on to the exclusion of other rational means when indicated. I think its salutary effect upon the local inflammation of the throat, when the acid is put in use at an early stage of the disease, not among the least of its benefits. It appears to me I had fewer anginose cases to contend with than some of my brethren who did not use the acid; I certainly had fewer than I ever before had in the same number of cases treated in the same period of time. I deemed it necessary to bleed but in a single case, and that proved fatal; not because the bleeding was inappropriate, as it for a while controlled the violence of the symptoms, but because the case was complicated with severe convulsions.

"Externally to the throat I used counter irritants, preceded by leeching where the local symptoms threatened to be violent. I found oil of turpentine and olive oil mixed in equal parts, or, in the proportion of two-thirds of oil with one of turpentine, applied every three or four hours, and the evaporation prevented by the application of a strip of flannel, a convenient means of obtaining my object. The sloughey ulcers of the throat, when met with, which was seldom, I treated satisfactorily by the application of nitrate of silver in solution, in the proportion of two scruples to the ounce of water, applied once a day. I found that this application can be much more effectually made by means of a nicely trimmed piece of sponge securely attached to the end of a whalebone handle, than by a camel's hair brush. I even prefer a swab, made by rolling a narrow strip of muslin on the end of a stick, to the brush. A very important indication in young children* is to keep the nostrils pervious, in order that the due aeration of the blood in the lungs may not be secured. This is done very effectually by throwing freely into those passages, by means of a small syringe, warm sage tea slightly acidulated with vinegar, and sweetened. Young children, too, as well as older ones who have become exhausted by the disease, require to have the tough mucus

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which obstructs the larynx removed from time to time. This, also, is best done by means of the syringe and the tea prepared as above described. Cool or tepid sponging of the surface was resorted to, with its usual tranquilizing effect. My cases of anasarca were treated chiefly with jalap and cream of tartar."

ART XII.—*Report of the Committee on Preliminary Education.* Read before the State Medical Society, June 1, 1852.

The Committee to whom was confided the duty "of organizing a Board of Examiners" for Students about to enter upon the study of Medicine, &c., touching their mental qualifications and preliminary education, beg leave to report: That, in discharge of the duty assigned them, they have felt the full force of the many difficulties which present themselves, in the practical and successful arrangement of a plan which shall be adequate to the accomplishment of the important end designed, viz: The elevation of the standard of Medical Education.

Yet many as are the obstacles to be overcome, we are not without hope, that most, if not all of them, may be remedied by the *united influence* and co-operation of the profession.

That a high standard of education is essential to the success, and elevated moral standing, in all the learned professions, is a truth, so fully felt and acknowledged, that we feel it would be a waste of your time, were we to attempt any discussion of the subject before this intelligent assembly. Certainly, of *none*, it is more *true* and *important*, than of the medical profession. No one needs more than the Physician, the highest endowments both natural and acquired. No one needs a more thorough mental discipline, more varied or available information.

If commanding powers of intellect, the wealth of learning, or the fascinations of eloquence, become the orator, or jurist, or statesman, or divine; is it less important to the physician, who is intrusted with the health and lives of community? Let him, then, assiduously cultivate his mind, invigorate and enlarge it by habitual and manly use, and enrich it with the treasures of all appropriate learning.

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Medicine is one of the most responsible professions on earth. It, therefore, should be learned, honorable, elevated and dignified. To make it such in Ohio, should be the great object of this Society. It is a lamentable truth, that the medical profession is fast being over-stocked—not with men of high mental and moral culture, but with a class of men assuming the name of *doctors*, totally unqualified for the solemn duties of the profession.

Talk as we may of empiricism among the Steamers, Eclectics, Hydropathists, Homœopathists, *et id genus omne*, but the fact cannot be concealed, that a large amount of quackery exists among those who profess to be the followers of a Mott, a Dunglison, a Chapman, a Pancoast—and in the West, a Drake, a Dudley, a Mussey; and we might name hundreds of others, who have not only immortalized their names by their splendid acquisitions in medical literature, and profound knowledge of medical science, but have shed a *halo* of glory around the country which gave them birth.

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start out in life, and advertise themselves '*doctors*;' and, as an essential preliminary, to bring themselves into notice, the two or three students, whom they have induced to read medicine, to secure the patronage and influence of their friends, without any regard to their mental or moral qualifications.

We would not magnify the evils of our present system of medical education—but feel assured we utter the language of stern and startling truth.

More than twenty years ago Prof. Drake declared that he could not be mistaken in asserting that a large portion of the profession in America were deficient in common school learning!

"I am constrained to say," wrote the learned professor, "that the profession abounds in students and practitioners who are radically defective in spelling, grammar, etymology, geography, arithmetic and book-keeping. Were this confined to irregular members of the faculty, it would be an affair of little magnitude; but extending to many of the graduates in all our Universities, it calls for unreserved exposure, and unqualified reprehension."

Although these remarks were made many years ago, when the facilities for acquiring an education were far less than at the present time—and while we are proud to know that medical science has made rapid and important advances since that time, yet we cannot forbear to declare our solemn conviction, that to a very great extent, they are as applicable to the profession *now*, as they were *then*. And we feel assured that to this cause, more than any other, has regular medicine lost its once elevated and legitimate position, as well as its just claims to public confidence. It is from ignorance and quackery *in our own ranks*, more than from all other sources, that we have sufferred.

And how shall these things be remedied? The work would seem properly to belong to the people. They are most interested, because *they* are the sufferers. But in many instances they are unable to decide between the claims of regular medicine and the sheerest quackery of the day, and often the whole profession is measured, in the public estimation, by the blunders and ignorance of some charlatan sailing under other colors.

In vain will the profession look to the *people* for protection! We have the power, and it is our duty to arrest the progress of this widespread and increasing evil. Or the practice of physic will be given

up to a set of rapacious knaves and blockheads, whose highest and most fond desire is *wealth!*

The remedy we propose is efficient, and at the same time, simple and practicable: *No young man should be permitted to engage in the study of medicine, who has not strong natural endowments, and a good English education.*

These are two grand pre-requisites which should ever be insisted on by private perceptors. They are essential and inseparable. Natural capabilities, unaccompanied with a respectable education, are insufficient, to master the elaborate and abstruse science of Medicine, and *vice versa.*

Neither medical schools nor *legislative enactments,* or National Conventions, can accomplish any thing towards salutary reform, in this particular, unassisted by the hearty co-operation of the private perceptor. Here is the starting point; with them must commence the *preventive system* which will exclude from our ranks incompetent men, and prevent their entering the profession.

To accomplish this desirable object, we would recommend the appointment of a "Board of Examiners" in accordance with the spirit and objects of the Resolutions offered by the Chairman of your Committee, and passed at the last meeting of this society, which resolutions we beg leave to make a part of our report, viz:

"*Resolved,* That a committee of three be appointed to nominate and report to this society at their next meeting, "a Board of Examiners consisting of five members, whose duty it shall be to examine all applicants who may wish to commence the study of medicine and surgery, touching their qualifications and preliminary education, and grant to such applicant, if found qualified, a certificate of his qualifications."

Resolved, That it shall be the duty of said board, to satisfy themselves that the applicant possesses sufficient energy of mind—is of good moral character, and has acquired a good English education, embracing a knowledge of Natural Philosophy, and the elementary Mathematical Sciences, including Algebra and Geometry.

Resolved, That no member of this society shall hereafter receive into his office any person as a student of medicine, &c., without a certificate from the Board of Examiners, stating that he has been examined and found qualified to commence the study of medicine, as herein provided for. Or on the presentation of a diploma from some literary college."

In adopting this standard of primary studies for students, we have aimed to conform to the recommendation of the American Medical Association on this subject—which, we feel assured, has been governed by the most liberal spirit to the student, at all compatible with his interest and standing in the profession, and the successful prosecution of his studies—or consistent with the honor and welfare of the profession and the public good.

We would not, therefore, be understood as limiting the student in his course of preparatory studies, to this standard, or as underrating a liberal and classical education. But where it is possible, would urge upon every young man who intends to pursue the study and practice of Medicine, to obtain, first, his degree of "Bachelor of Arts" in some reputable college. His diploma would furnish evidence of qualifications, and may be received as a voucher, equivalent to a certificate from the Board of Examiners.

To carry into effect the objects of the foregoing resolutions, we have corresponded with a number of gentlemen in different sections of the State, and are happy to be able to present the names of the following gentlemen, of high literary attainments, eminently qualified for the duties assigned them, who have expressed their willingness to serve as a "Board of Examiners" for the State Medical Society, and in this way contribute to the advancement of general science, and particularly the elevation of medical science.

We would, therefore, nominate the following persons as said "Board of Examiners:" viz:

Cincinnati.—William Green, Esq., Prof. Joseph Ray, M. D., Charles C. Matthews.

Dayton.—Robert W. Steel, C. Valandingham.

Springfield.—Prof. H. Geiger.

Mansfield.—Hon. Mordecai Bartley, Prof. Isaac J. Allen, M. D.

Columbus.—Asa D. Lord, M. D.

Chillicothe.—Rev. Samuel Findley.

Cleveland.—George Hoadley, Esq., William Slade, Jr., William C. Beattie.

Steubenville.—Benj. Tappan, M. D., R. S. Moody, Esq., Chas. C. Beatie, Esq.

Marietta.—J. D. Cotton, M. D., Hugh Trevor, M. D.

In this arrangement of the board, we have deemed it best to increase the number to *twenty*, and to locate them at a number of prominent points in the State. In doing so, we have been governed by

a desire to render some one of the members acceptable to every student in the State, within the distance of a day's travel, and also to divide labor so as not to make it burdensome on the members of the board.

We would make it the duty of each one of the board to keep a record of the *time, name* and *result,* of every student examined and passed, and report the same to the Secretary of the State Society, annually, a month preceding the meeting of the Society; in which report it would be well to distinguish the standing of each, by the terms *qualified, well qualified,* and *very well qualified,* as it will act as an incentive to applicants, to make higher attainments in their preliminary studies. These reports should be filed and preserved by the Secretary—which will, in time, form an important item of statistics in the history and medical literature of Ohio.

By the third resolution it is made absolute and binding on the members of the State Society, to receive no student into their office hereafter, until he shall have passed an examination before the "board" and obtained a certificate of qualifications. Here our power or authority ceases. We would, however, most earnestly *recommend* to every regular physician in the State, who loves his profession and desires to advance its interests, by elevating the standard of preliminary education, to conform to the spirit and letter of the resolutions; whether he be a member of the State Society or not.

If the State Medical Society will take this stand in favor of a uniform and higher standard of primary education, we feel assured that every high-minded honorable perceptor in the State will gladly conform to the requisition. It will free them from the unpleasant task and responsibility of refusing to take young men into their offices, whom they know to be deficient in mental capabilities or primary education—a position which few have the moral courage to meet, especially if the applicant is a young man backed by a large and numerous circle of friends and relatives of wealth and influence, the patrons of the perceptor. A case, as we are confident, by no means uncommon. By adopting this plan of requiring a certificate of qualifications from a "board of examiners," we shift the responsibility, and secure a uniform and higher order of primary qualification in the student.

Another very important result, it is believed, will follow the organization of such a board of examiners. It will furnish a better

class of students for our medical schools, and lay the foundation on which we may ask and expect their co-operation, by requiring a higher standard of qualification in the candidate for the doctorate.

We would therefore *recommend* to the medical schools in Ohio, to demand of all candidates for graduation; first, a certificate from the preceptor, of his good medical reading, stating the length of time he has read medicine. Second, that he shall also furnish a diploma from some respectable literary institution, or, in the absence of such testimonial, he must furnish a certificate from some one of the Board of medical examiners, of his qualifications to enter upon the study of medicine, as provided for in the foregoing resolutions.

In this connection there is another point to which we would call the attention of the private preceptor, which we deem of vital importance. It is the regular daily or semi-weekly examination of their pupils, upon the various branches of their course of studies. We know that this is a matter too much neglected. No preceptor discharges his duty to his pupil—to the professors in the schools, or to the public, who fails to discharge this duty; and yet how few perform it as it should be! Were our students regularly examined in this way, they would be more familiar with the subjects of their studies, and be much better qualified for the quiz class. It would overcome that embarrassment which often prevents him from telling what he does know, and it would correct many erroneous opinions which he may have embraced, and save him the mortification of having them exposed and corrected before a public class.

If we view this subject in the spirit of an enlightened philosophy, we cannot but see how great are the responsibilities of the physician. It is his mission to mitigate human suffering and woe—to rekindle the lamp of life about to be extinguished—to throw the sunlight of joy and peace around the social circle—to restore to the domestic fireside the music of love, and hope and happiness—and is it not a glorious mission?

Then, let each member of this Society labor to elevate the character and standing of our profession, and endeavor, by every honorable means to advance its interest and its dignity.

Whilst other departments in the arts and sciences are marching forward, with gigantic strides, to fame and usefulness, we owe it to ourselves and to society, to exert all our energies to redeem the profession from the degradation to which *quackery* and *neglected education*

have reduced it, and to raise it to the high and honorable position to which it is justly entitled.

When we do this, and not till then, will we see regular medicine triumph over ignorance and prejudice, and quackery, in all its hydra-headed forms. Then we will see our medical colleges thronged by students of a higher order of talents and literary attainments.

All of which is respectfully submitted.

P. J. BUCKNER, M. D.,
Chairman.

The Committee to whom was re-committed the report on "the preliminary studies of students about entering on the study of medicine," beg leave further to report: "That we have most cheerfully complied with the instructions of the Society so far as we have been able, or have been furnished with the means or data to carry into effect the instructions of this honorable body, in the following particlars, viz:

1st. We concur in the suggestion of adding two members from each auxiliary society, and two from each county where there are no auxiliary socities, throughout the State. But for want of a knowledge of proper persons to supply the list, must necessarily return the report incomplete; but beg leave to suggest that leave be granted, either to the Chairman of your Committee, or to the Secretary of this Society, to complete the Board as above indicated, as soon as practicable after the adoption of the report, should that be the final action of this body.

2d. We would further recommend that the following gentlemen be added to the board of examiners, viz:

Shelby County—M. R. Wyman, and Rev. Mr. Spence.

Butler County—Isaiah Scott, Esq., Professor Anderson of Oxford.

Summit County—James Carpenter, Esq. L. V. Bierce, Esq.

Preble County—W. J. Gilmore, Esq., and Felix Marsh, Esq.

Knox County—Hon. R. C. Hurd, W. J. Smith, Esq.

Licking County—Prof. Carter, of Granville College, S. D. King, Newark.

Athens County—Prof. A. Ryors, of Ohio University.

Columbiana County—Dr. B. Stanton, Salem.

Lorain County—Professor James Dascomb, M. D., Hon. P. Bliss.

In reference to the amendment of the report offered by Professor Edwards, and the amendment to the amendment, offered by Prof. Baker, we beg leave to report, that we have given all the reflection which the short time allowed us would permit, and with due regard to the high sources whence they emanate, have not been able to see that any advantage would be gained by their adoption, but beg leave respectfully to say, that after having weighed well the arguments in support of these, we believe their adoption would lessen, if not render nugatory, the objects of the report. And beg leave to report it back to the Society, with alterations and additions, as above specified.

All of which is respectfully submitted.

P. J. BUCKNER.

[NOTE.—We ask of some regular Physician, who feels an interest in this matter, to procure the consent of *two* literary gentlemen who may be willing to serve on this "Board of Examiners" and forward their names to the Chairman of the Publishing Committee, W. W. Rickey, of Cleveland, from all the counties of the State, not provided for in the above report, that the Board may be full before the proceedings of the Society are published. We hope they will be careful to select men true to scientific medicine.]

PART THIRD.

FOREIGN INTELLIGENCE.

TOXICOLOGY.

ART. I.—*Deaths from Anæsthesia.*

The British and Foreign Medico-Chirurgical Review, for January, gives the following summary of the deaths from anæsthesia, in the order of the occurrence of the cases. The list does not include several cases which have occurred within the last eighteen months, nor, as the writer remarks, "at least five well-authenticated deaths from needless and careless use of chloroform in this country [England] alone, or of numerous cases where dangerous symptoms have been observed, or death obscurely traced:

"1. Hannah Greener, aged fifteen, was greatly afraid of respiring the chloroform—only about two drachms were used—insensibility was produced in half a minute, when the removal of a great toe-nail was commenced; death occurred in about two minutes.

2. Case at Cincinnati, aged thirty-five, apparently in good health, was chloroformed for about a minute for extraction of a tooth; death occurred in five or ten minutes.

3. Patrick Coyle, chloroformed for fistula: he inhaled for about a minute, and almost instantly expired.*

4. Mdlle. Stock, Boulogne, aged thirty, subject to palpitation, and chlorotic; inhaled about fifteen or twenty drops; operation, opening of an abscess in hip; death almost instantaneously.

5. Daniel Schlyg, aged twenty-four, had a thigh fractured by a ball during the days of June, in Paris, and was in a state of profound depression; he inhaled the chloroform for about three minutes, amputation at the hip joint was performed, and death occurred in three quarters of an hour.

6. Walter Badger, aged thirty-three, had heart and liver disease; he inhaled chloroform for about a minute, previous to the extraction of a tooth; the operator, Mr. Robinson, of London, was absent for less than a minute to seek some chloroform, and found his patient dead on his return. The inhalation took place from an apparatus.

7. A young woman of Hyderabad, was chloroformed for amputation of middle finger of left hand; about a drachm of chloroform was used; death almost instantaneous.

8. John Griffith (Warren) had chancres and hemorrhoids; inhaled about three drachms, and died in about ten minutes, during the excision of the hemorrhoids.

9. Abbey Pennock (Warren) inhaled about three drachms in two applications, to relieve the pain of toothache, and died almost immediately after the second application.

10. Example by M. Malgaigne. A man, one of the wounded of the three days of June, had the humerus broken by a ball, and was a good deal weakened by hemorrhage and gangrene of the wound; was chloroformed, and the humerus disarticulated; new inhalations

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*The case of Coyle is given by Dr. Warren alone.

were taken during the search after the ball, and he died during the last incision.*

11. Charles Denoyers, aged twenty-two, was affected with white swellings of the left wrist, and chloroformed at the Hotel Dieu, of Lyons for five minutes before and during cauterization of the tumours; death took place shortly after the commencement of the operation.

12. Case of M. Roux; removal of a scirrhous breast; death before quitting the amphitheatre.

13. Case described by M. Guerin, as having taken place at the end of the operation.

14. Case at Govan; a young man chloroformed for removal of the great toe-nail; death almost immediate.

15. Case of M. Barrier, of Lyons; a young man named Verrier, aged seventeen, inhaled from six to eight *grammes* of chloroform for about six minutes, for an amputation of the finger, and died in about half a minute afterwards.

16. At the Hospital of Madrid (Bouisson,) a child of twelve years being chloroformed for an amputation of the leg, was seized with a tetanic spasm, and died in a minute and a half.

17. By M. de Confevron, of Langres. Madame Labrune, aged thirty-three, of a nervous temperament, was chloroformed for the extraction of a tooth; almost instant death.

18. Mr. Solly's case; a man aged forty-eight, apparently in perfect health, inhaled rather more than a drachm of chloroform from an inhaler for about three minutes; then a toe-nail was removed; and death took place in about six or seven minutes from the beginning.

19. Case at Leeds, Robert Mitchell; chloroform applied during an attack of delirium tremens, by M. Teale; death about an hour afterwards. (Hardly a clear case.)

20. Case at Shrewsbury; a girl named Jones; only a small quantity of chloroform was given before proposed extirpation of the eyeball; almost instant death, as from apoplexy.

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*Dr. Warren gives 10 fatal cases, but inserts the cases which we omitted for the reasons above given. This last case is our 9th; and our 11th is the 7th of M. Bouisson, who, like us, excludes suicidal cases, and such like. He gives 15 cases; his last is our 17th.

21. Case at Berlin; a young lady died during the extraction of a tooth, from the alleged effects of about half a drachm of chloroform.

22. Case at Guy's Hospital, referred to in "Medical Gazette" for June, 1850.

23. Aschendorf's case; a child of one year old operated on for a nævus under the influence of chloroform; only about nine drops were used; death on removal from the table.—*British and Foreign Medico-Chirurgical Review.*

Art. II.—*Eaters of Arsenic.*

A letter from Vienna, dated October 28, 1851, to the *Gazette des Tribunnaux*, has the following details:

A few days ago, the assizes opened at Colli, in Styria. Among the cases was that of a charge of poisoning. The victim was an old soldier, named Wurtzel, who died suddenly, in the month of May last, and in whose stomach, on examination, aasenic was found. The Vienna newspapers, in giving an account of the case, report that the court, in submitting it to the jury, presented the following question: "Was the deceased an arsenic eater?" To which the jury replied, "Yes, he probably was."

This question and answer have excited great interest, and it was at one time supposed that the report was altogether suppositious or erroneous. But the following explanation is now given on good authority: "In the province of lower Austria, and of Styria, bordering on Hungary, it is quite common for men to chew particles of arsenic, mixed with their bread, very much like the Chinese chew opium. The absorption of the small quantity thus used, induces a fresh and clear complexion, and to a certain extent, brightens the intellectual faculties; but with those who make a habit of thus eating it, there follow, before long, debility and premature death. Females do not at all indulge in it, and the few men thus distinguished are known by the name of *eaters of poisons—Med. Chiurg., December* 16, 1851.

PART FOURTH.

BIBLIOGRAPHICAL NOTICES AND REVIEWS.

1—*The History, Diagnosis, and Treatment of the Fevers of the United States.* By ELISHA BARTLETT, M. D., Professor of Materia Medica in the College of Physicians and Surgeons of New York, etc. etc. Third Edition, revised. 8vo. pp. 595. Philadelphia: Blanchard & Lea. 1852.

We are happy to see a third edition of Prof. Bartlett's work on Fevers called for so promptly. It is alike creditable to the reputation of its author, and good judgment and discrimination of the profession by which it is so cordially received. We do not propose to give an outline of the work, nor quotations from its pages, as these are unnecessary—every intelligent physician is more or less acquainted with its merits; we wish simply to announce the fact that a new revised edition of the work is out—more would be superfluous. Dr. Bartlett is one of the most (and perhaps the *most*) graceful of American professional writers. His classification is perfectly systematic and natural—his descriptions clear and unambiguous, and his arguments and conclusions commend themselves to the good sense of every intelligent reader. The work will doubtless, as it deserves, meet with a liberal sale.

Sold by J. H. Riley & Co.

2—*Clinical Reports on Continued Fever, based on Analysis of one hundred and sixty-four cases, with remarks on the management of Continued Fever; The identity of Typhoid Fever, Relapsing Fever, Diagnosis, etc. To which is added a memoir of the transportation and diffusion by contagion of Typhoid Fever, as exemplified in the occurrence of the disease at North Boston, Erie county, N. Y.* By AUSTIN FLINT, M. D., Professor of the principles and Practice of Medicine, &c., in the University of Buffalo. 8vo. pp. 390. Buffalo: Geo. H. Derby & Co. 1852.

There are few works in the possession of the medical profession which contain so large a collection of thoroughly generalized facts, as the

one alluded to above. The subject of investigation and discussion is one of paramount interest. Continued Fever, a disease which for several years has been somewhat prevalent in New England, is now spreading all over our country, and threatens to invade every household. It is a disease of the utmost gravity, and very probably it will become more and more prevalent as billious and malarious affections subside. It is a disease too, about many points of which there is yet considerable controversy, and it behooves physicians to *post themselves up* as far as possible, in regard to its nature and management, so as to be prepared to treat it successfully.

Few, indeed, can appreciate the vast amount of labor bestowed in the preparation of this work. It is a book of *facts*, not *jumbled* together in heterogeneous confusion, but assorted, arranged, and systematized, so as to make the basis of general principles and clear conclusions. It is a book made where few books *are* made—as its materials are drawn fresh from the bedside, and being arranged and transposed in every possible manner, truth, reliable truth, is evolved, which cannot fail to enlighten those who wish to study the history of this disease.

Space, and the design of our Journal, forbid us making any considerable quotations for the benefit of our readers, but we take pleasure in saying that Prof. Flint has laid the profession under lasting obligations for this able and faithfully elaborated contribution to our professional literature. We commend the work understandingly, not merely from an examination of it, but from our knowledge of its author. Unfortunately standard works are frequently put into our hands for whose truthfulness we cannot vouch. It is a lamentable fact that many men whose veracity is more than questionable at home, write and make books which are widely distributed abroad, where their authors are not known. The author of the above work is a reliable man—his facts *are* facts, and his generalizations are philosophical, and we have no doubt the profession will award to him the high credit he deserves.

We advise our readers to purchase and read it.

3—*Lectures on the Principles and Practice of Surgery.* By Bransby B. Cooper, F. R. S., Senior Surgeon to Guy's Hospital, etc. 8vo. pp. 771. Blanchard & Lea, Philadelphia: 1852.

However defective and circumscribed our Surgical Literature may

have been formerly, there is not now, neither is there likely to be, a paucity of works on the principles and practice of Surgery, for the guidance of the student in the pursuit of his studies. Notwithstanding, our American profession seems inclined to provide for itself in this respect, and has done so to a very fair extent yet our trans-Atlantic brethren are far in advance of us. Almost every steamer brings over some new work from the English or French press, which for some peculiar reason, is deemed by the author a desideratum to the profession. It has only to find its way to Philadelphia, where obstetricians of a certian kind, always in pursuit of a *case*, attend its "passage" through the press, and preside, with the utmost professional dignity over its birth, and who, as an advertisement of their eminent attainments, stamp their new, and frequently unheard of name on the "new-comer's" forehead. A few have the temerity to make their advent upon us unattended by professional aid, and become adorned with an American dress, as reputable as those which have more respectable relations. To the latter, and much the smaller class, the work of Mr. Cooper belongs.

Respecting its merits, we may say with confidence, that it is a plain, unadorned, systematic exposition of the principles and practice of Surgery. It is neither "short nor prolix." The author is not a professional book maker. He hates all that tribe of men who make books out of other men's brains. He denominates them *thieves* and *robbers*, and will not associate with them. His work is founded upon his own experience, and he writes like a man who knows the impotencies, as well as the powers of his art. Though plain and unambiguous, his style has neither the beautiful simplicity of that of the great Sir Astley, his uncle, nor the elegance of Miller, nor the originality of Fergurson. Although he is not a man of genius, nor of extraordinary talents, Bransby B. Cooper is an old soldier in the work. His experience having been varied and extensive he is comptent to make valuable contributions to the literature of his department, and he has done so. We think it will become a standard work on Surgery.

Sold by J. H. Riley & Co.

4—*The principles and Practice of Surgery.* Illustrated by three hundred and sixteen engravings. By WILLIAM PIRRIE, F. R. S., Regius Professor of Surgery in the Marischal College, and University of Aberdeen, etc., etc. Edited, with additions, by JOHN NEILL, M. D., Surgeon to the Pennsylvania Hospital, Demonstrator of Anatomy in the University of Pennsylvania. 8vo. pp. 784. Philadelphia: Blanchard & Lea. 1852.

It is not pretended by the author that this work has any peculiar claims to a favorable reception, above others of a similar character. It was written and published in compliance with the expressed wishes of his surgical classes, and he asks at the hands of others a candid consideration.

From the examination we have been able to give the work, we are strongly inclined to recommend it. The author has succeeded in combining simplicity of arrangement, conciseness and clearness of expression with the elucidation of sound principles and practice. In the elaboration of the various subjects, the work is more full and complete than that of Druit, whose work is widely distributed and well known in this country. We are of the opinion that this will make an excellent standard work, and well adapted for reference for the general practitioner. The publishers have executed their part in a beautiful and workmanlike manner.

Sold by J. H. Riley & Co.

5.—*On the Surgical Treatment of Polypi of the Larynx and Œdena of the Glottis.* By HORACE GREEN, A. M., M. D., President of the Faculty, and Professor of Materia Medica in the New York Medical College, &c., &c. 8vo. pp. 124. New York: G. P. Putnam, etc.

No monograph, we believe, has hitherto been published on Polypi of the Larynx, and the literature on this subject is extremely limitted. Dr. Green, of New York, whose reputation in the treatment of throat diseases is world wide, has thought proper to write a book on this rare affection. In the annals of surgery there have been but thirty-nine cases of the kind recorded, a great majority of which terminated fatally. Six of them occurred in New York, four of them were detected by the author, and two by Prof. Parker. Since nearly one sixth occurred in the practice of two physicians only,

Dr. Green, very justly, we think, concludes, that "it is quite reasonable to suppose that a larger number of instances of polypous growth, than all of those hitherto observed, have existed undiscovered, and have been, in fact, the undetected cause of death in many cases." Most of the cases on record died of absolute suffocation, and the causes of this suffocation were not detected till after death.

This being the fact, notwithstanding the comparative rareness of the affection, it forms a subject worthy of a monograph, and we know of no one more competent to make it, than the man who has already executed the task.

After giving a brief outline of all the cases on record, Dr. Green gives his own in detail, and accompanies them with very well executed lithographic plates, which facilitate materially their elucidation.

The work closes with a history of four or five cases of Œdema of the Glottis, with practical remarks thereon. This, under ordinary treatment, though quite local, has been a very fatal disease. It is very well known that a very slight degree of swelling from infiltration into the sub-mucous cellular tissue of the Larynx will effectually obstruct the passage of air through that important organ. Dr. Buck has written an article on this subject, which was published in the transactions of the American Medical Association, and made some improvements in the treatment of the disease, in the way of incisions, to allow the escape of the infiltrated serum in the parts adverted to. Dr. Green resorts to his favorite remedy, concentrated solution of nitrate of silver, sixty grains to the ounce, by which, according to his own account, he rescues patients in articulo mortis from occlusion of the laryngeal passage, and restores them speedily to health. While we believe that his representations of the efficacy of nitrate of silver in such extreme cases, are extravagant, we would certainly adopt his plan before proceeding to the formidable operation of bronchotomy.

No one can deny that Dr. Green has made many valuable contributions to the surgery of the air passages, and has done much to disarm laryngeal phthisis of its terrors, yet his professional brethren complain of him, and allege that his course is not professional; whether or not these imputations are true, we do not know; but from information from various sources, we are led to believe that while his treatment of disease is mainly scientific, and frequently followed by delightful results, he allows himself a latitude in prognosis not justified by the nature of the diseases he treats, nor what he knows frequently must be the final destiny of his patients. We

have known persons laboring under confirmed phthisis who were made to believe by him that their recovery was certain, and that their diseases were *cured*. This is not right—yet as the obliquities, as well as the weaknesses of human nature have sometimes to be overlooked, we pass over these matters, and ask our friends to purchase this valuable monograph of Dr. Green and read it. Its careful consideration may result in the saving of many precious lives.

PART FIFTH.

EDITORIAL AND MISCELLANY.

Our Fifth Volume.—We commence the publication of the fifth volume of the Journal, with renewed energy and with a variety of encouragements that stimulate us to increased exertion for the benefit of our readers. Many of our delinquent subscribers have paid up *old scores*, while our subscription list has been materially extended. Almost every mail brings us the name of a new subscriber. For all these favors we are duly thankful. While we congratulate ourself upon our flattering prospects, we would remind those yet in arrears that the terms of the Journal are two dollars a year *in advance*. For this consideration, we hope to be able to serve up bimonthly a tolerably delectable repast for all our patrons.

Cholera and Dysentery.—Since the issue of our last number, the Cholera has continued to prevail, to a limited extent, in Columbus, and in a few of the towns in its vicinity. As our city authorities did not think proper to organize a board of health nor appoint persons to ascertain the extent of the disease among us the present summer, we are unable to give an accurate statistical account of its mortality. We believe that about fifty or sixty persons have died of Cholera since the 20th of June last. The disease, when fully developed, manifested its usual malignity, and, with few exceptions, proved fatal; but there were a great number of cases bearing the symptoms of incipient cholera, which yielded directly and kindly to

opium, calomel, camphor and aromatics, with rubefacient counter-irritation. How many of these would become, without treatment, confirmed cholera, we believe observation will not enable us to determine.

In the early stage of this fearful malady, there is perhaps little doubt as to the efficiency of the remedies adverted to. If there is value in experience, we cannot avoid the conclusion that opium will allay the irritation of the stomach and moderate the peristaltic action of the bowels; that mercurials will excite a flow of bile and render the alimentary evacuations more consistent; that camphor and aromatics will quiet nausea and give tone to the stomach, and that rubefacients will act as salutary revulsives. They will produce these desirable results, provided always that the organs to which these remedies are addressed, have not lost their impressibility to such stimuli. But there are very strong doubts in our minds, at least as to their remedial powers, in fully developed cholera. That such cases do occasionally recover, every physician of experience will affirm. Some under one plan of treatment, and some under another, while others and perhaps an equal number, recover in absence of all treatment, or what is equivalent to it, Homœopathic treatment!! Several cases have come under own observation, which have laid for days in a partially collapsed state, with frequent discharges, and at the same time they were taking sugar pellets medicated with infinitesimal doses of *nothing*; and strange to say, they recovered, as every man in his senses knows, without medicine. The former class of patients recover uninfluenced by the most potent remedies: the latter class recover entirely without them—while each class of champions of the healing art boast, but not according to knowledge, of the trophies of their skill and the transcendental excellencies of their plan of treatment. Truly there are fallacies in medicine, as well as in the other professions, and the wisest are liable to be deceived by the ever-varying circumstances by which cases of the same kind are surrounded.

The *Cholera* has not altogether left our borders; but

The *Dysentery* has perhaps been unusually prevalent among us during the present summer. As, on former occasions, the latter disease has accompanied and followed the former. Indeed all "bowel complaints" have been rife, and few have entirely escaped a disordered condition of the alimentary canal. Typhoid fever has made its appearance, but usually in a sporadic form. Intermittent

fever has not transcended its ordinary prevalence at this season of the year. The disparity between the prevalence of dysentery and intermittent fever, would, we should suppose, be a matter of surprise to those who believe that both these diseases arise from the same malarious origin, and consequently should be treated with the same anti-periodic, *quinine*. This notion, we are convinced, is a mischievous one, as will be seen presently.

Several physicians have applied to us by letter, for our views as to the most appropriate treatment of dysentery. We can readily imagine how a few partial friends might be desirous of obtaining them from our own hand; but we have not the vanity to suppose that our notions as to the treatment of this disease would attract the slightest attention from the profession at large. First, because we have nothing new to offer; and, second, because, if we had, our professional reputation is not sufficient to enforce the trial of our suggestions to any considerable extent. Nevertheless, it may be our duty, and it certainly affords us pleasure to give our testimony in regard to—we had almost said, the omnipotence of *opium* as a *sheet anchor* to the treatment of this most distressing malady. This remedy must ever be the main reliance, and so far as this disease is concerned, *it is the blessed boon from God to man!* Without it, the agonies of death are unequal to the tortures of violent disentery. With it the indescribable pains are alleviated, and the patient falls at once into comparative ease and rest.

But *opium* is not the *only* remedy in dysentery. We have unshaken confidence in the use of occasional doses of saline purgatives. Epsom salts to the adult, and Rochelle salts to those of tender age. These purgatives we administer every third or fourth day. They act in a salutary manner in several ways. 1st. They irritate the bowels less than almost any other cathartic medicine. 2d. They sweep out the alimentary canal as thoroughly as any other. 3d. They produce, for the time being at least, nearly natural bilious evacuations, and sometimes the dysenteric discharges never return after their operation. 4th. They seem, by their hydragogue powers, to disgorge the capillary vessels of the mucous membrane of the lower bowels, by which they are enabled to contract upon themselves, and to resume thereby more nearly their normal calibre. The last idea is purely theoretical and must be so, as we have no means of verifying their effects in this respect.

Mercurials are remedies of undoubted power in many cases of dysentery, but we doubt whether they should ever be pushed to salivation. In cases unaccompanied by intense irritability of the stomach and bowels, they excite a flow of bile and open the other secretions, and thereby accelerate the cure; but their use is generally far from being indispensable.

We have frequently administered *quinine* in cases where we supposed it to be most admissible, but we confess we have never been pleased with its action. While it has never with us arrested the disease in one individual case, unless complicated with well-marked intermittent fever, it has often aggravated the symptoms, and in our opinion protracted the cure. We regret that our experience in this particular does not correspond with that of others whose testimony is worthy of the highest respect. The practice of one or the other must be based upon erroneous pathological views, and are liable at least to result in injurious consequences. A case illustrating the questionable influence of quinine in dysentery occurred, not long since, in the person of an eminent physician in a neighboring county, who, during the prevalence of this disease declared, should he be attacked by it, he would never die by debility or for the want of an anti-periodic. Soon after he was attacked by disentery, and he plied thoroughly, as he intented, quinine, his sovereign remedy. His disease proved intractable, and he died without the slightest alleviation of his symptoms. On post mortem examination, his colon was found to be one mass of ulceration. We are inclined to believe that physicians, attacked by dysentery, are more likely to die than others, probably from their aversion to the full effects of opium, as well as all other active remedies in their own persons.

During its prevalence in Columbus, the disease has proved fatal in but few instances. We regret to say that our ranks have been broken again, and that one of our esteemed and reputable professional brethren has been stricken down within a few weeks. Dr. Samuel Z. Seltzer, aged about fifty years, was unexpectedly taken from among us by dysentery while in the enjoyment of a large practice and the unqualified respect of all who knew him.

Hassall's Microscopic Anatomy.—Few perhaps of our readers have had an opportunity to examine this splendid work in two royal

octavo volumes. The first being occupied by the text, and the second entirely by plates with their explanations. We have never seen any work in the English language which does more full and complete justice to its subject or more credit to its author and publishers than this. Every elementary fibre and corpuscle, individually and collectively, both in a healthy and diseased state, are clearly described in the text, and beautifully illustrated in the plates. It is a work before all others, in this department of medical science.

We invite our readers to take the earliest opportunity to examine the work for themselves, should it be brought within their reach by Mr. L. S. Pease, of Painesville, Ohio, who is the agent for its sale and distribution in the West.

MEDICAL SCHOOLS AND PROFESSIONAL CHANGES.

Inasmuch as the number and condition of the Medical Schools of our country, together with the mututions to which they are liable, are matters of general interest to the profession at large, we are inclined to give them, through the medium of our Journal, so far as they come to our knowledge.

First, then, a new school has been organized in Cincinnati! called the Miami Medical College. Its corps of professors are able and ambitious men. Of course they are ambitious, or they would not have entered upon such an enterprize, to struggle with the difficulties and competition that await them. The veteran Dr. Mussey, who does not feel quite resigned to the retirement which the Ohio Medical College has indirectly urged upon him, is at the head of it. He has for his colleagues several of our personal friends, in whose welfare we feel an abiding interest. Cincinnati is highly favored, so far as Medical Schools are concerned. Indeed, she is almost "blessed to death." True, only a portion of them can be considered as orthodox. Yet the number of each reminds us of the family of the good pious lady who was asked by her new parson how many of her children had been baptized? She replied "all but eleven." "She had thirteen more who were still in the gall of bitterness." All the Colleges of Cincinnati have been baptized in the regular faith but three!! As each school must be manned by a corps of about seven professors, these personages must be becoming as numerous in that voluptuous city as the locusts of Egypt; yet we would not by any means insinuate

that the former were as *destructive,* in their progress, as the latter. On the contrary, we would like to believe that professors are more thoroughly qualified to practice their profession, as a general rule, than laymen. If this be the fact, the relative mortality of Cincinnati must be, to quote a fragment of one of our former colleague's anecdotes, "very minute." How is this, neighbor Lancet?

From various indications, we have been led to believe that there was a kind of epidemic which has prevailed to some extent in the profession of our Queen City. It may be denominated *cacoethes legendi;* and now that this new school is organized, we doubt whether this very purient epidemic will be suppressed; for there are a great number of professional gentlemen, those who, finding that "honors are easy," will not be satisfied to be considered as "Outsiders," but will ere long form another school by which to gratify their ambitious views, and to provide the people with scientific practitioners.

We beg our friends will pardon our allusion to what may be their business, and not ours. Those who are anxious to know the details of this new organization, we would refer to the pages of our advertising department.

We are credibly informed that the Medical School at Indianapolis, which has, for a few years, sustained a rather feeble existence, has been abandoned.

Professors Flint and Palmer, who occupy the chairs of Theory and Practice and Anatomy, in the University of Buffalo, have been appointed to the same chairs in the University of Louisville, to fill the vacancies produced in that school by the resignation of Professors Drake and Cobb, who were appointed to the chairs of Practice and Anatomy in the Medical College of Ohio at Cincinniti, *mutatis mutandis.* All are ready for their respective sessions of toil.

Spectacles and Cutlery.—We would say to our friends that Blynn and Baldwin have a very large and excellent collection of Spectacles which are suited to every condition of the eye, requiring the aid of lenses. We procure, through them, our best cataract glasses. They have also fine cutlery; none, however designed, for surgical use.

For the Ohio Medical and Surgical Journal.

Ohio State Medical Society.

Mr. Editor: This body held its annual session for the present year at Cleveland. The session commenced the 1st day of June, and terminated on the 4th, lasting four days.

The attendance was very respectable, so far as members were concerned, and comprised a fair proportion of the ability of the State.

For the ensuing year, Dr. H. A. Ackley, of Franklin county, was elected President, and Drs. McLane nnd Carey, of Dayton, Secretaries, and Dr. Rickley, of Cleveland, Treasurer.

The amount of business transacted during this meeting was not large, and the original papers read were very few. As these will be published, and laid before the profession, we omit any further notice of them, and refer to some things that in all probability will not be less interesting to a certain portion of the profession. We allude, among other things, to the subject of *Medical Education.*

As has been usual, for a number of years, this subject soon took a prominent place in the deliberations of the Society.

It will be reccollected by those conversant with the transactions of last year, that Dr. Buckner, of Cincinnati, was appointed Chairman of a committee, the object of which was to report a plan to guard the profession from being overrun with men destitute of sufficient preliminary education, natural intellectual energy, and good moral character. The resolutions, under which the committee was appointed, are as follow:

"*Resolved,* That a committee be appointed, to nominate, and report to this Society, at its next meeting, a Board of Examiners, consisting of *five* members, whose duty it shall be to examine all applicants, who may wish to commence the study of Medicine and Surgery, touching their qualifications and preliminary education, and grant such applicant a certificate, if found sufficiently qualified..

"*Resolved,* That it shall be the duty of said Board to satisfy themselves that the applicant possesses sufficient energy of mind—is of good moral character, and has acquired a good English education, embracing a knowledge of Natural Philosophy, and the elementary mathematical sciences, including Algebra and Geometry.

"*Resolved,* That no member of this Society shall hereafter receive into his office, any person, as a student of Medicine, without a certificate from the Board of Examiners, stating that he has been exam-

ined, and found qualified to commence the study of Medicine, as herein provided for, or on the presentation of a diploma from some literary college."

The report of the committee, of which these resolutions formed a part, led to a discussion which took a latitude embracing almost every thing connected with Medical Education.

Among those who spoke in favor of the adoption of the report were Dr. Delameter of Cleveland, Dr. Mussey, of Cincinnati, Dr. Murphy, do., Drs. Howard, S. M. Smith, and R. Thompson, of Columbus, Dr. Krider, of Lancaster, and Dr. Buckner, of Cincinnati, the author of the report.

Those who spoke against the report were Drs. Tom, O. Edwards, and Baker, of Cincinnati, Dr. Crane, of Eaton, Drs. Ackley and Stanton, of Cleveland.

Other gentlemen than those named made remarks, both *pro* and *con.*

The discussion upon these resolutions was characterized with earnestness. Several gentlemen spoke at length, although without much apparent preparation. Among those that it was our fortune to hear, were Drs. Howard, Edwards, Smith, Murphy, Baker, Delameter, Acley, Buckner and Mussey.

Upon which issues were taken, there were several points.

By those who spoke in the *affirmative,* it was contended, that the resolutions contemplated commencing the reform in medical education in the right place—at the threshhold of the student's medical life, that the profession could be more successfully guarded at this place than at any other; that a good English education, as contemplated in the report, ought to be regarded as an indispensable prerequisite to those who aspire to become students of medicine; and that notwitstanding a few instances of success, and even distinction, may be adduced, where the primary training has been limited, the rule is not, as a consequence, the less positive or valuable, and that the appointment of a Board of Examiners, consisting of literary gentlemen, unconnected with the profession, whose duty it will be to examine all applicants who wish to study medicine, and if found qualified, to grant them a certificate to that effect, will interest another class of influential men in guarding the interests of the profession, and take from private preceptors a portion of the responsibility of making physicians.

Those who spoke in the *negative* contended that there were about 3500 physicians in the State, only about 250 of whom had ever had any connection with the State Society, and, as a consequence, if the Society adopted the report, there would be only about one physician in every fourteen, of the State, who would feel themselves under any obligation to comply with the mandates of the Society; that the tendency of the measure would be to drive students of medicine out of the State, to places where the restraints were less rigorous; that the measure was wrong in principle, because it takes away from medical men, who, it was alleged, are certainly the best judges, the right to decide upon the fitness of the student to enter the profession; that the measure, instead of being addressed to the profession in the terms of respectful request, is *mandatory* in its character, to all members of the Society, making those liable to excommunication, who do not think proper to comply with its terms; and lastly, that it is in advance of public opinion, and as a consequence, will not likely be respected, much less strictly observed.

Such is a very brief outline of the arguments used on both sides. By some of the speakers they were considerably elaborated.

By recurring to the names of those who participated in the discussion, it will be observed that some of them are professors,—the others "*laymen.*"

Of their style of speaking in general, we cannot omit a brief notice. Being in the habit of speaking on subjects in the general way scientific, it is not to be expected, of course, that medical men could speak without some inconvenience, where they at once entered the arena in the character of controversialists. The didactic style of speaking, and the *ipse dixit* of the teacher are very different from that in which every position taken and argument advanced are to be examined by an opponent, and submitted to the crucible of ridicule, sarcasm, &c. It is true that lecturing upon science requires a cultivated and well disciplined mind. Debating requires not only these, but a good stock from which to draw for position and proof, quick perception to see the points most important to be refuted, a good judgement to discriminate between what can be disproved, and what is only made more obvious by the attempt to disprove it; some knowledge of Logic, to know the difference between an argument and a sophism; more or less acquaintance with Rhetoric, to know how to arrange matter, that it may have the greatest possible amount of elegance, clearness, and force; and lastly, a little wit and humor

comes in very good play, to keep the attention of hearers, and furnish something in the way of amusement.

During the course of the debate there was some considerable variety of manner exhibited. We observed some that were too timid to speak well. From what we knew of their stock, they doubtless could have edified the Society, and have done themselves a credit, had they been sufficiently accustomed to off-hand extemporaneous speaking to have inspired them with self-confidence. It has been said, and well said, that next to confidence in the Lord, a proper confidence in one's self is the most important element of success.

Instances we have occasionally noticed at these meetings, in which the *matter* of the speaker, although too radical or ultra, would nevertheless have passed off pretty well had not the manner been objectionable. If good matter accompanied with a disagreeable manner frequently fail to accomplish the object in view, of course when both are objectionable, there can be no question about the result. The speakers to whom we are alluding, possess something of the *vehement* style of Bolingbroke. Like this great man was in the habit of doing, they pour themselves forth with great impetuosity, often flowing strong, but occasionally muddy; declaiming with heat rather than deliberation; generally copious to a fault; not unfrequently placing the same subject before the hearers in many different views; and occasionally heaping and crowding a number of things upon one another, as naturally happens in the warmth of speaking. But unlike the author to whom we have alluded, they seemed not to conceive that any thing was necessary in order to conciliate the good will of the hearers. To this oversight, there was united a vindictiveness of manner, that showed that the speaker would rather destroy than persuade, and some attempts at cant, the tendency of which could not be otherwise than prejudicial, in discussions upon science.

Some instances we have noticed in which the speaker seemed to be afflicted with a kind of pruriginous desire to speak on every question that came up for consideration. As might be expected in such cases, his remarks in the general, were irrelevant, often applying to almost every thing else than the matter under debate; sometimes exceedingly prolix, taking up the time of the Society in speaking to positions that he did not understand, as was on one occasion proven by the manner in which several of this class of speakers voted. How strange is it, that medical men, than whom no class ought to know

better the impropriety of such a course, should be found occupying the time of their society, in extravagant verbiage upon every question that comes before it for deliberation. In medical matters, as all know, it requires more science to know when we should *not*, than it does to know when we should give medicine. So in Surgery—it requires more skill to know when an operation should *not* be performed than it does to know when it should be performed. The same, we imagine, is true of public speaking

Another class of speakers, very different from those noticed, occupied some of the time of the Society. Simple and unaffected in manner, their matter was perspicuous, concise and pointed. They rather seemed to speak from a sense of duty than from a desire to make themselves prominent, and, as a consequence, what they said was very acceptable.

In this connection we will notice another matter. We presume no one who has attended the meetings of the Society, has failed to notice the delinquency of a considerable proportion of our physibians in regard to a knowledge of parliamentary usages. So much is this the case, that they often, on meeting together, find themselves more or less embarrassed by the rules necessary to the order and dispatch of business. At the late meeting of this Society, so little attention was paid to the proper order of business, that some of the most important papers, those of an original character, and as a consequence those that should have had a prominent place in the proceedings, were postponed to the close, when three-fourths of the members had gone home.

We explain this want of a knowledge of parliamentary law, not on the principle that medical men know less of things generally than those belonging to any of the other learned professions, for the saying but emanated from a source of uncommon character, that of all the *learned* professions, the medical is the most so—but we explain it by what is familiar to all, that the avocations, the usual routine of the physician's business, furnish but few opportunities for cultivating, practically, a knowledge of the laws pertaining to deliberative bodies.

What would be a better remedy for this state of things than the institution of County Medical Societies throughout the State? This measure, although so little appreciated that but very few organizations of the kind have had more than an ephemeral existence, would create theatres, not only for adding to the present stock of knowl-

edge, but also for these trainings that alone can impart information in regard to the method of transacting public business. By way of conclusion we may say of this matter, as was once said of *spelling*. A man eminent in the commonwealth of letters remarked, "it is no great accomplishment to be a good speller, but a *miserable* blemish to be a bad one."

The report on Medical education, before it was finally adopted, was so modified as to increase the number of members of the Board to twenty, and also to locate them at a number of prominent points of the State, so as to be easily accessible to students. The report also recommends that each one of the Board keep a record of the *time*, *name*, and *result* of every student examined and passed, and report the same to the Secretary of the State Society, distinguishing between the standing of students by the terms *qualified*, *well qualified*, and *very well qualified*.

With reference to some of the points strongly emphasized in this report, we will offer a few thoughts.

To guard the profession from being overrun with men deficient in a knowledge of letters, figures, intellectual and moral character, has been heretofore, and will be in the future, a difficult task. The reason of this is that it is difficult to tell *a priori*, when case is presented, into what it can be converted. It is not always the case that those who have been favored with the best primary training are the best fitted for the study of the medical or any other profession. This early training is generally found in connection with easy circumstances, an indifference to want, and a disposition to do but little except what is merely calculated to minister, perhaps, to personal or family pride. As a consequence we see not a very large proportion of those who have had the advantages in early life of a classical education that have become distinguished in our profession. Indeed, the most distinguished at the present time, and the same has always been the case, are men who commenced without means, and without much preparatory education.

Such being the case, it lends a plausibility to the position of those who doubt that early education has every thing to do with making medical men.

To succeed as either a *talented* or useful man, something more is necessary than a mere education. We want certain conditions relating to the mental and moral constitution of the individual. A well-balanced mind we want—one that can maintain the perpendicular

through this age of humbuggery; industry, untiring industry, an honorable ambition to excel in every undertaking, and self-confidence sufficient to enable the individual to rely upon his own opinions and judgment—his own ability to act. Possessed of such traits, a young man, although his education may be defective, will, as soon as he is made acquainted with the requirements of his profession, exert himself to remedy his defects, and, in nine cases out of ten, he will excel the graduate in those elementary studies available to the proper comprehension of medical science.

We do not design, in any thing we have said, to undervalue a classical education, or the plan contemplated in the report of requiring, on the part of medical students a good preparatory education. We only wish to suggest that other things, as well as these, are necessary to either usefulness or eminence. A young man, it is true, with a very ordinary mental constitution, may, by having the advantages of a good education, find his way into the ranks of the profession with more facility than one with perseverence and a good calibre, who has been less favorably circumstanced. Still, while the position of the former will most likely be nominal, benefitting, in no respect, either himself or the profession, that of the latter will be one of advancement, that, in all probability, will result in credit to himself and usefulness to his profession.

Besides intellectual qualifications, those of a *moral* character should not be overlooked. Intellect, it matters not how strong or brilliant, does not, *per se*, qualify an individual to enter the medical profession. To be of any value, it must exist in connexion with a good state of morals. Instances there have been, as all admit, of men who have cultivated the profession with considerable zeal and have contributed something to its stock, who have been destitute of moral principle. Their example, however, and the influence they have exerted, have been any thing else than salutary. To think of a man, who has no regard for his own reputation, engaged in exercising the delicate functions of the physician, is humiliating in the extreme. We want men, not only of good intellectual, but also of good *moral* developments—men who, by the force of their example, will give the right direction to public opinion on all matters of a moral nature.

It matters not what may be said in regard to the relative influence of the different classes of individuals who go to make up society, it is very obvious to the casual observer that the physician's

position is more closely connected with the formation of the morals of the community in which he resides, than that of any other class of individuals; and often more than all other classes put together. To mothers, and fathers, and children, he has access in such a way as to make him acquainted with their constitutional proclivities—their weak points—their "besetting sins;" and, as a consequence, he is very often able to make whatever impression his taste may suggest.

Waving, however, every thing in the way of principle, in connection with the matter we have been considering, *policy*—a desire to see the interests of the profession extended, requires that care should be exercised in regard to those who wish to become physicians. Every true lover of his profession, not only desires to see it become popular, but does all that he can, in his intercourse with society, to bring about this state of things. The more popular we can make it, the more it will be able to subserve the objects for which it had been instituted. This is so axiomatic that it is needless to elaborate it. Equally obvious it must also appear, that a popularity founded upon any thing else than scientific attainments and strict moral integrity, will amount to nothing at all.

Such being the case, there seems to be a propriety in guarding the portals of the profession against those who would not only do nothing to give it character and popularity, but who, from their moral obliquities and want of self-respect, would do much to bring it into disrepute.

We will now notice another branch of the subject of Medical education which was occasionally referred to during the course of the discussion. I allude to the attention given to students while in the office of the preceptor. Time and again, it has been stated that this was much neglected; and that physicians who take students into their offices, ought to be reminded that they owe a duty to the profession, that if faithfully performed, would relieve the colleges of much of the complaints made against them, of turning out men upon the commuity with indifferent qualifications.

To extenuate the force of such statements, no one has, as far as we have noticed, made any attempt. It seems to be taken for granted that private pupilage, as a general rule, is much neglected, and that there seems to be as much room here for reform, as in college instruction.

That much attention is requisite while the student is laying the foundation of his medical education, is too obvious to require an

effort to prove. This, as every body knows, is the most auspicious period for giving discipline to the mind, cultivating habits of industry, and infusing into the student correct conceptions of the noble character of our science, and the vast fields that are to be explored.

Few, indeed, are the departments in medical science, but what can be prosecuted with considerable success in a *well conducted course of private pupilage.* Botany, Materia Medica, Medical Jurisprudence, Physiology, and the Principles of Pathology, may be studied with considerable success with a private preceptor. And really of Anatomy and Chemistry, there is no good reason why students should know so little when leaving the office of the perceptor. With a skeleton, Osteology can be very well understood; and, by procuring a subject occasionally, and preserving it in alcohol, dissections and demonstrations may be carried on to such an extent, that, in stead of the lectures at College being an unintelligible jargon, the student will be prepared to appreciate and understand most of what may be said. The same remark may be made concerning Chemistry. Chemical apparatus may be obtained at a very trifling expense, that will answer all the purposes of laying the foundation of a knowledge of the science. Look at the discoveries of Galileo, with a telescope that cost fifteen shillings, and the researches in Chemistry, by Berzelius, with Florence flasks and pipe-stems. And, also, with respect to Obstetrics, it is a very easy matter to demonstrate on the pelvis of a skeleton, with an artificial fœtus, the Mechanism of labor, the various presentations, and the modes of accomplishing delivery by art.

Such being the case, private perceptors are left without excuse, in very many instances, when they send students to college unprepared to appreciate the teaching of professors.

We have, therefore, no apology to make for the deficiencies on this score of which so much complaint has been made of late. The matter needs correction, and so far as we are concerned, we feel that all the suggestions on the subject are entitled to great consideration.

Professor Edwards, of Cincinnati, read two papers to the Society—one on the use of strychnine and oil of turpentine in Cholera, the other on the Treatment of Typhoid Fever. Both papers were founded on cases treated in the Commercial Hospital of Cincinnati.

The paper, in regard to the treatment of Cholera by strychnine and turpentine, was short, but it set up some very prominent points.

In order to explain the *modus operandi* of the remedy, the author assumed the position that Cholera is caused by a lesion of inervation, or paralysis, as he termed it, of the nerves of organic life. This state of things he presumed strychnine eminently adapted to correct, and, from his experience with it, he had no hesitation in recommending it as the most available agent, at the present time, before the profession. While engaged in narrating the history of some cases, in confirmation of his views, he was asked, whether or not, he had ever used the strychnine without the turpentine, and if so, what were its effects? He replied that he had so used it, and that, by itself, it took no effect at all. This circumstance, it was noticed, was not very confirmatory of the pathology of the disease. If, as the author of the paper contended, the pathology of the disease consists in torpor or paralysis of the ganglia of the sympathetic nerve, there seems to be, according to the accustomed ways of thinking, some propriety in using strychnine, but none in using turpentine, unless our knowledge of the therapeutic powers of this latter article is about to be expanded. But then the strychnine proved to be inert when administered by itself.

Such reasonings, in regard to the efficacy of a single article, when it is only capable of producing good effects, by being administered in combination with something else, partakes strongly of the nature of sophistry. Indeed, in our common elementary works, under the head of "*Ambiguous Middle*" examples of fallacies are given of similar character. Inasmuch as the kind of reasoning to which we have been alluding, is of very common occurrence, we commend the chapter on "*Ambiguous Middle*" to the attention of those engaged in the investigation of similar subjects.

We do not in the least doubt the results detailed by the author, as following the use of strychnine and turpentine combined. We think, however, that, instead of attributing them exclusively to the strychnine, as the author's views of the pathology compelled him to do, they might, with equal reason, be attributed to the turpentine. Stimulants, as all know, have character in the treatment of Cholera, and turpentine being of that class, there would be some little propriety in giving it prominence in the results. Still it would be sophistical to do so.

The other paper, read by Professor E., as noticed above, was on the treatment of Typhoid Fever, in the Commercial Hospital. This paper contained some very interesting facts. It gave an account of a number of cases of typhoid fever, treated with *cold water injections*. The results, were successful, indeed more so than what follows in an equal number of cases treated with drugs.

These experiments, although limited, we regard as not only very creditable to Prof. E., but will assist materially in contributing to hasten the profession to the position, to which, from all the facts being elicited, they are tending, that medicines possess but little control over the complaint, and that more cases will recover when submitted to the *vis medicatrix naturæ*, than will if put upon a very active use of drugs.

Cold Water Injections is of course the next thing to the purely "*expectant*" treatment. And still, we can imagine that filling up the lower bowels with cold water during the exacerbations of the fever, or in cases characterized from the beginning with a great amount of heat of surface, can have no other than a very salutary effect.

The next meeting of the Society will be held in Dayton. This is wrong. It was wrong to move it from Columbus to Cleveland, as was done last year, because a majority of the members voted against having it removed. It was a greater wrong to appoint the next meeting at Dayton, because it was done by parliamentary management, as was the casé in moving it from Columbus to Cleveland. But there are other reasons why it should not have been appointed at Dayton. Dayton is situated very badly for the convenience of the profession in different parts of the State; and, on that account, the Society will be less numerously attended than if some more central place had been selected. Columbus is the proper place for its meetings. This has heretofore been demonstrated, and we presume will be again.

J. D.

Columbus, *August 15th*, 1852.

Starling Medical College.—We take pleasure in again adverting to the condition of this institution. The difficulties incidental to the founding of a Medical College having been surmounted, and *the most splendid College edifice in the world* being in the progress of

completion, we, and all others concerned, indulge high hopes as to the prospects of our School, and the facilities which it will offer to the medical student who prosecutes his professional studies within its walls. The profession throughout the West have looked upon this school with great favor. This was illustrated by the large classes which flocked hither when the lectures were delivered in a *shanty* too *shabby* for a respectable Institution. Our students stood by us, and forsook us not when our building scarcely protected them from the chilling blast, nor the suffocating heat of illy ventilated lecture rooms. Now that our college building, an ornament to our state and country, towers above our beatiful city in proud magnificence, and now that our faculty, newly organized, is "thoroughly furnished for every good work," will students and the profession be less liberal in their support? Never—we know their good sense and the opportunities we have to offer too well for this. We are thankful for past favors and patronage—we crave no more than fidelity to our trust and indefatigable exertion, in the cause of medical education, deserve—a liberal patronage, and shall we not have it?

Chloroform, in Infantile Convulsions.—Our excellent friend, Dr. T. W. Bradley, of Florence, Pa., says, "I have used Chloroform in infantile convulsions, with the happiest results. In one case, I kept the little sufferer under its influence twelve successive hours, reapplying it as often as it gave signs of waking; after finally withholding it, he waked up apparently well, and continued so."

My Dear Doctor: A druggist in Cincinnati handed me, some time ago, a prescription by the renowned "Nigger Doctor," Rezin Chase, of which the following is a correct copy. Don't you think it worth publishing:

Godfrey's Cordial 40 drops,
Bateman's Drops, 40 drops,
Lard, 2 teaspoonfuls,
Butter, 2 tea-spoonfuls,
Best Brandy, 2 table-spoonfuls,
Chamber-ley, 2 tea-spoonfuls,
mix. Take 2 tea-spoonfuls on going to bed.

The above was for a gentleman who had sought the advice of several eminent physicians, without avail; but Dr. Chase promised to cure him up "sartain."

Yours, as ever,

S. H. S.

Strychnia in Vesicular Emphysema.—By ABRAHAM METZ, of London, Seneca County, Ohio.

June 6, 1852. Ostian, aged 20, of well-formed body, and sanguine temperament, applied for medical advice.

His face is pale, lips blue, pulse 75 per minute and regular, tongue clean, is clear of pain, digestive organs in good condition, says, "I am well, but can't get my breath." Every third or fourth inspiration, he draws a forcible and long breath. On any active exercise, he takes paroxyms of extreme dyspnœa.

Last winter, during a spell of unusually cold weather, he was much exposed, whilst teaming, and took a severe cold, with violent cough, which, however left him in a few weeks; but ever since he has had the difficulty of breathing he now experiences.

The right side of the chest is decidedly more prominent than the left. The intercostal spaces are enlarged. There is, on the right side, an unusually clear and resonant sound on percussion, whilst auscultation yields but a very weak vesicular murmur. There is also slight crepitation on the right side. The left lung does not appear to deviate far from health.

Treatment.—Cupping between the shoulders—a dose of Fer: Carb: three daily, and intermediately a dose of 2 grs. Ext: Hyos: ¼ gr. Ipecac. and 5 grs. Hydr. C. Creta—to avoid cold and damp atmosphere—to abstain from all exercise, or whatever is calculated to cause too active respiration. As the patient lives some distance from my residence, I did not see him again until

June 20.—Is no better—perhaps stronger, but the dyspnœa is worse.

I now gave him an oz. of Hall's solution of the chrystals of strychnine, to commence with ten drops three times a day, and increase the dose five drops every day, until the dyspnœa cease, or until tenderness of the cervical part of the spine take place. Should either of those effects follow, the medicine is to be discontinued for

three days, then taken for a few days again, and so on until the oz. is consumed.

August 20.—He has strictly complied with the directions. When he arrived at xl gtt. the dyspnœa to a great extent ceased. Before the oz. was exhausted, he was entirely clear of all unpleasant symptoms.

He has since been actively engaged in farming, and is able to perform hard labor, without any bad effects.

There is less resonance on percussion, and auscultation yields as clear a vesicular murmur as is common to healthy respiration. I consider him entirely cured.

It is to be hoped that, on further experience, strychnia will prove as happy a remedy in the paralysis of the contractility of the lungs, as it has been in the same disease in the urinary bladder.

EPIDEMIC DISEASES OF OHIO, INDIANA AND MICHIGAN.

At the late meeting of the American Medical Association, the undersigned was reappointed chairman of a committee to report upon the Epidemic Diseases of Ohio, Indiana and Michigan at the next meeting of the Association to be held in New York, in May next. In fulfilling the object enjoined upon the chairman, he has appointed, N. Johnson, M. D., of Cambridge City, Indiana, R. Pitcher, M. D., of Detroit, Michigan, and D. Tilden, M. D., of Sandusky, Ohio, as members of the committee. It is desirable that as complete a report as possible be made, and the co-operation of the profession in these States is therefore most earnestly requested. Information is especially desired on the following subjects:

Epidemic Cholera,	Typhus and Typhoid Fevers.
Cholera Infantum,	Hooping Cough,
Diarrhœa,	Influenza,
Dysentery,	Measles,
Erysipelas,	Scarlet Fever,
Intermittent and Rem. Fevers,	Small Pox, &c.

Any form of disease appearing as an epidemic will be understood as being included along with the above.

The points of greatest interest to which attention is particlarly invited are, Causes giving rise to and favoring the propagation of dis-

ease, or checking its progress; Prophylactics; Influence of Age, Sex and Nativity; Prominent Symptoms; Extent of Prevalence; Proportional Mortality; Post mortem appearances; Treatment; Duration of individual cases of disease; and any other points that may in any way bear upon the subject, such as Soil; Geological formations (illustrated by any map when practicable;) Natural Productions; Condition as to Improvement; Water; Meteorological Observations, &c.

It is preferred that reports be made to January 1st, 1853, including the previous year. If any remarkable visitations of disease should have occurred previously to that time, an account of them will be acceptable, carefully designating the date of occurrence.

General Medical History, also of the *changes* which have occurred in particular districts, in diseases, since the settlement of the country will be gladly received.

It is desirable that all reports made to the committee may be forwarded, so that they may be in the hands of the chairman by the 15th of January, 1853.

The chairman takes this method of thanking those physicians who sent him contributions for last year's report, and hopes that they may repeat them for the present year.

It is hoped that this appeal to the profession will be responded to, and that every member will feel himself called upon to contribute something to the general fund of knowledge on these subjects.

Contributions may be sent to

GEO. MENDENHALL, M. D., *Chairman*,
Cincinnati, Ohio.
Z. PITCHER, M. D., Detroit, Mich.
N. JOHNSON, M. D., Cambridge City,
Wayne County, Indiana.
D. TILDEN, M. D., Sandusky, Ohio.

P. S. The committee would respectfully solicit the aid of County and other Medical Societies; which can efficiently be rendered by members making brief reports of the diseases of their respective neighborhoods to the secretaries, who can condense them and furnish the result to the committee. Especial attention is also requested to the furnishing of geological maps of counties and districts, when practicable.

Ironton, O., Aug. 14, 1852.

Dr. Howard :

Dear Sir: I subjoin the report of a rathar unusual case which recently occurred in my obstetrical practice. If, in your opinion, its publication will be interesting to the readers of your valuable Journal, it is at your disposal.

Respectfully, yours,
J. P. BING.

Death of a Fœtus at seven months, retained in utero with a live one until full time.

On the morning of the first instant, I was called upon to attend Mrs. B., aged about 36, in her fifth confinement. Upon my arrival, I found the presentation natural, and the first stage of labor complete. In the course of an hour she was safely delivered of a healthy male child, above the average size (8 pounds being its weight.) When the funis was tied and the child separated, I placed my hand over the uterus, and found it contained what seemed to be another fœtus. After a few minutes, uterine contractions recurred, and a dead child (male also, and presentation natural) was expelled, together with the secundines of both. No rupturing of membranes or "gush of the waters," seemed to occur previous to the birth of the last child.

Upon examination of the dead fœtus, I found nothing abnormal in its conformation, save the scalp, which was enormously distended, forming a sack capable of containing three quarts, and filled to about half its capacity with serous fluid and broken down portions of the brain. The fœtus was in a state of putrefaction, the cuticle easily detached, and emitting an offensive odour. On enquiring of the mother, I learned that some two months previous to her confinement, in consequence of the illness of her family, her mental and bodily powers were over-exerted, which produced unusual, though not alarming symptoms; and, subsequently, she had experienced but little moving, and was fearful that her offspring would be "still-born." The small size, imperfect development, and putrid state of the fœtus, in connection with the history of the case, led me to suppose that the child died at seven months, and was retained with the living one to full term.

Mrs. B. is of strong constitution, and in her third confinement, also bore twins.

The child remains quite healthy, and the mother had a speedy convalescence.

Kentucky School of Medicine.

ESTABLISHED IN THE CITY OF LOUISVILLE, AS THE MEDICAL DEPARTMENT OF THE MASONIC UNIVERSITY OF KENTUCKY.—The second session of the Kentucky School of Medicine, will commence on the first Monday in November next, and continue four months, under the direction of the following Faculty:

BENJ. W. DUDLEY, M. D., Emeritus Professor of Anatomy and Surgery.

ROBERT PETER, M. D., Professor of Medical Chemistry and Toxicology.

SAMUEL ANNAN, M. D., Professor of Pathology and the Practice of Medicine.

JOSHUA B. FLINT, M. D., Professor of the Principles and Practice of Surgery.

JAMES M. BUSH, M. D., Professor of Anatomy.

LLEWELLYN POWELL, M. D., Professor of Obstetrics and Diseases of Women and Children.

ETHELBERT L. DUDLEY, M. D., Professor of Surgical Anatomy, Operative and Clinical Surgery.

HENRY M. BULLITT, M. D., Professor of Physiology and Materia Medica.

DAVID CUMMINS, M. D., Demonstrator of Anatomy.

The fees for the full course of Lectures, amount to $105. Matriculation fee, $5, to be paid once only. Graduation fee $25. Dissecting ticket $10. Hospital ticket (which admits to the Clinical Lectures at the Louisville Marine Hospital,) $5. The Surgical Cliniques at this Hospital will be given by Prof. E. L. DUDLEY, of the Kentucky School of Medicine.

A COURSE OF LECTURES on various subjects which do not usually receive full attention during the regular term, will be given in the month of October, by the Faculty of the Kentucky School of Medicine, assisted by Drs. B. M. WIBLE, and B. I. RAPHAEL. This course will commence on the first Monday in October, and will be free to all Students of Medicine who may desire to attend.

The following are some of the subjects which will receive attention in this Course:

Chemistry, Physiology and Pathology of the Urine, by Prof. R. PETER.

Diseases of Children, by B. M. WIBLE, M. D.

Disease of the Genito-Urinary Organs, by B. I. RAPHREL, M. D.

Principles of Diagnosis, Prof. H. M. BULLITT.

Clinical Surgery at the Hospital, by Prof. E. L. DUDLEY.

HENRY M. BULLITT, M. D.,
Dean of the Faculty.

July 1, 1852.

University of Nashville.

MEDICAL DEPARTMENT.

THE second Annual Course of Lectures in this department will commence on the first Monday in November next, and continue till the first of the ensuing March.

FACULTY.

PAUL F. EVE, M. D.,
Principles and Practice of Surgery.

JOHN M. WATSON, M. D.,
Obstetrics and the Diseases of Women and Children.

A. H. BUCHANAN, M. D.
Surgical and Pathological Ahatomy and Physiology.

W. K. BOWLING, M. D.
Institutes and Practice of Medicine.

C. K. WINSTON, M. D.,
Materia Medica and Medical Jurisprudence.

ROBERT M. PORTER, M. D.,
General and Special Anatomy.

J. BERRIEN LINDSLEY, M. D.,
Chemistry and Pharmacy.

WILLIAM T. BRIGGS, M. D.,
Demonstrator of Anatomy.

The anatomical rooms will be opened for students on the first Monday of October.

The students will have access to the State Hospital.

A full *preliminary course* of Lectures will be given by the Professors, commencing on the first Monday of October.

Good Board can be obtained in the city at from $2 50 to $3 per week. Further information may be obtained by addressing the Dean.

J. B. LINDSLEY, M. D., Dean.

Nashville, Tenn., June 1852.

MEDICAL DEPARTMENT OF

University of Buffalo.

SESSION OF 1852--3.

THE Course of Instruction in this Institution will embrace, as hitherto, a preliminary and a regular term. The *preliminary* term for the session of 1852–3, will commence on *Wednesday, the 24th day of November*, and continue to the commencement of the regular term. The *regular* term will commence on *Wednesday, the fifth day of January*, and continue four months.

FACULTY.

JAMES P. WHITE, M. D., Dean.

JOHN C. DALTON, Jr., M. D., Treasurer and Registrar.

CHARLES BRODHEAD COVENTRY, M. D.,
Emeritus Professor of Physiology and Medical Jurispudence.

CHARLES ALFRED LEE, M. D.,
Professor of Pathology and Materia Medica.

JAMES PLATT WHITE, M. D.,
Professor of Obstetrics and the Diseases of Women and Children.

FRANK HASTINGS HAMILTON, M. D.,
Professor of the Principles and Practice of Surgery, and of Clinical Surgery.

AUSTIN FLINT, M. D.,
Professor of the Principles and Practice of Medicine, and of Clinical Medicine.

GEORGE HADLEY, M. D.,
Professor of Chemistry and Pharmacy.

JOHN C. DALTON, Jr., M. D.
Professor of Physiology and Morbid Anatomy.

EDWARD M. MOORE, M. D.,
Professor of Anatomy.

HUGH B. VANDERVENTER, M. D.,
Demonstrator of Anatomy.

The preliminary term will be devoted mainly to dissections and Hospital instruction.

The opportunities for clinical instruction at the Buffalo Hospital of the Sisters of Charity, members of the Medical Faculty being the attending Medical and Surgical officers during the session, are unsurpassed. The average number of patients at this Institution is about 150 *per diem*, during the winter months. Students will here be able to study disease, the application of the principles of diagnosis and therapeutics, and to witness numerous and varied surgical operations.

The facilities for the study of Practical Anatomy are complete.

☞ The fees, for the next session, have been reduced to $50, for the tickets of all the Professors.

Matriculation fee.....	$3	Hop. ticket (for Hop.)	$ 5
Demonstrator's ticket.....	5	Graduation Fee.....	20

Notes, satisfactorily secured, will be received in payment for the general ticket, at the discretion of the Dean.

Good board may be obtained at from $2 to $3 per week.

Application for circulars, or information, may be made to the Dean.

Buffalo, July 1852.

Baltimore College of Dental Surgery.

SESSION 1852—'3.

FACULTY.

CHAPEN A. HARRIS, A. M., M. D., Professor of Principles and Practice of Dental Surgery.

THOS. E. BOND, Jr., A. M., M. D., Professor of Special Pathology and Therapeutics.

W. R. HANDY, M. D., Professor of Anatomy and Physiology.

ALFRED A. BLANDY, M. D., Professor of Operative Dentistry.

PHILIP H. AUSTIN, M. D., Professor of Mechanical Dentistry.

REGINALD N. WRIGHT, A. M., M. D., Lecturer on Chemistry.

The Mechanical and Dissecting Rooms will be opened on the last Monday of October. The Infirmary will be open throughout the year. The regular *Course of Lectures* begin on the last Monday of November, and continue until the last of March.

Tickets for the course $100. Dissecting Ticket (optional) $10.

Matriculation, $3. Diploma Fee, $30.

Good Board, from $2.50 to $3.50.

W. R. HANDY, *Dean.*

Miami Medical College, Cincinnati.

SESSION OF 1852—'53.

THE regular course of Medical Lectures in this Institution, will commence on the FIRST MONDAY OF NOVEMBER NEXT, 1852, and continue four months.

BOARD OF TRUSTEES.

Rev. C. ELLIOTT, D. D., President of the Board.

O. M. LANGDON, M. D., Secretary do. do.

Rev. THORNTON A. MILLS.

HON. C. D. COFFIN.

R. D. MUSSEY M. D.

Hon. JOHN BURGOYNE.

Hon. GEO. HOADLEY, JR.

E. M. GREGORY, ESQ.

GEO. MENDENHALL, M. D.

The *Faculty* is composed of the following gentlemen:

R. D. MUSSEY, M. D., Professor of Descriptive and Operative Surgery.

J. P. JUDKINS, M. D., Professor of Surgical Anatomy and Surgical Pathology.

CHAS. L. AVERY, M. D., Professor of Anatomy.

JOHN DAVIS, M. D., Adjunct Professor of Anatomy.

JOHN F. WHITE, M. D., Professor of Theory and Practice of Medicine.

GEO. MENDENHALL, M. D., Professor of Obstetrics and Diseases of Women and Children.

JOHN A. MURPHY, M. D., Professor of Materia Medica, Therapeutics, and Medical Jurisprudence.

C. G. COMEGYS, M. D., Professor of Institutes of Medicine.

JOHN LOCKE, JR., M. D., Lecturer on Chemistry.

A *Preliminary Course* of Lectures upon some important specialties, in Medicine and Surgery, will be given during the month of October. These Lectures will be free. Students are advised to commence with this course.

The *Dissecting Rooms*, under the supervision of the Adjunct Professor of Anatomy, will be opened on the first of October.

Fees for the full course, $105. Matriculation Ticket, $5. Hospital Ticket, $5. Dissecting Ticket, $10. Graduation Fee, $25.

For further information, address

J. P. JUDKINS, M. D., Dean of the Faculty.

University of Louisville.

MEDICAL DEPARTMENT.

THE Lectures in this Department will commence on the first day of November next, and terminate on the last of February.

CHARLES W. SHORT, M. D., Emeritus Professor of Materia Medica and Medical Botany.

BENJAMIN R. PALMER, M. D., Professor of Descriptive and Surgical Anatomy.

LUNSFORD P. YANDELL, M. D., Professor of Physiology and Pathological Anatomy.

SAMUEL D. GROSS, M. D., Professor of the Principles and Practice of Surgery.

HENRY MILLER, M. D., Professor of Obstetric Medicine.

LEWIS ROGERS, M. D., Professor of Materia Medica and Therapeutics.

BENJAMIN SILLIMAN, JR., M. D., Professor of Medical Chemistry and Toxicology.

AUSTIN FLINT, M. D., Professor of the Theory and Practice of Medicine.

T. G. RICHARDSON, M. D,, Demonstrator of Anatomy and Dissector in Pathological Anatomy.

The fee for admittance to the Lectures of each professor, is $15, payable invariably in advance. Matriculation and Library fee together $5. Graduation fee, $25. Practical Anatomy and Dissection, $10—ticket to be taken at least once before graduation. Rooms open from 1st October.

A preliminary course of lectures, free to all students, will be delivered during the month of October.

Clinical instruction is given twice a week at the Louisville Marine Hospital.

Ticket $5, to be taken once before Graduation.

A Clinique has also been established in connection with the University, at which operations are performed and cases prescribed for and lectured upon in presence of the class.

☞ Good boarding can be procured at from $2.50 to $3 per week.

L. P. YANDELL, M. D., *Dean of the Faculty.*

New York Medical College.

THE next annual Course of Lectures in the New York Medical College, will commence on Wednesday, 6th October, 1852, and continue five months.

HORACE GREEN, M. D., President of the Faculty, and Professor of the Theory and Practice of Medicine.

JOHN H. WHITAKER, M. D., Professor of General, Descriptive and Surgical Anatomy.

EDWIN HAMILTON DAVIS, M. D., Professor of Materia Medica and Therapeutics.

B. FORDYCE BARKER, M. D., Professor of Midwifery and Diseases of Women and Children.

R. OGDEN DOREMUS, M. D., Professor of Chemistry.

J. M. CARNOCHAN, M. D., Professor of the Principles and Operations of Surgery and Surgical Pathology.

EDMUND R. PEASLEE, M. D., Professor of Physiology, Pathology, and Microscopy.

JOEL PARKER, L. L. D., Professor of Medical Jurisprudence.

C. C. ALLEN, M. D., D. D. S., Lecturer on Dental Pathology and Dental Surgery.

D. S. CONANT, M. D., Demonstrator of Anatomy.

A preliminary Course of Lectures will commence on Wednesday, 22d of September, which will be independent of the regular Course, and will be free to all Medical Students.

The Dissecting Rooms will be opened for Classes on the 1st of October.

This College has just received from Europe a most valuable and extensive Museum, fully representing external and internal Pathology, together with the whole series of Mocroscopic Models.

The advantages which New York offers for Clinical Study, far surpass those of any other city. The Students of this College can have access to the New York Hospital, Bellevue Hospital, and Emigrants' Hospital, as well as to the Eye and Ear Infirmary, and the various Dispensaries of the city. A Surgical and a Medical, and an Obstetrical Clinique, will be held weekly by the Professors of these departments. Obstetrical cases and subjects for dissection, are abundantly furnished for the students.

FEES.—Matriculation, $5. Demonstrator's Ticket, $5. The full course, $105. For the final examination, $30.

By the charter of the Institution, a Graduate of the School can practice his profession in any part of the State, without being subject to the annoyance of examinations from Medical Societies.

R. OGDEN DOREMUS, Dean of the Faculty.

New York Medical College,
East Thirteenth st., near Broadway.

MEDICAL COLLEGE OF OHIO.

SESSION OF 1852--53.

THE THIRTY-THIRD Annual Course of Lectures will commence on the

FIRST MONDAY IN NOVEMBER,

Under the following arrangement, and close on the last of February:

JEDEDIAH COBB, M. D., Professor of Anatomy.

JOHN LOCKE, M. D., Professor of Chemistry and Pharmacy.

JOHN LOCKE, Jr., M. D., Adjunct Professor of Chemistry and Pharmacy.

L. M. LAWSON, M. D., Professor of Physiology and Pathology.

T. O. EDWARDS, M. D., Professor of Materia Medica and Therapeutics, and Medical Jurisprudence.

H. W. BAXLEY, M. D., Professor of Surgery and Surgical Anatomy.

LANDON C. RIVES, M. D., Professor of Obstetrics and the Diseases of Women and Children.

DANIEL DRAKE, M. D., Professor of Theory and Practice and Clinical Medicine.

WM. H. COBB, M. D., Demonstrator of Anatomy.

The Dissecting Rooms will be opened on the first of October, and continue throughout the session. Every desirable facility will be afforded for the study of Practical Anatomy.

Clinical Lectures, by the Professors of the Practice of Medicine and Surgery, will be delivered regularly through the session, at the Commercial Hospital.

Preliminary Lectures, during the month of October, will be delivered by members of the Faculty. This course (which will be free,) will embrace Clinical Lectures at the Hospital, and Lectures at the College. It will not infringe on the regular course.

The new College Building just finished, will be in readiness in every respect, at the opening of the ensuing course; pupils, therefore, may rely on every convenience for the prosecution of their studies.

Fees.—For the whole Course collectively, $105; Matriculation ticket, $5; Dissecting ticket, $10; Hospital ticket, $5; Graduation fee, $25.

Good board (including fuel and lights) will average about $2 50 per week.

L. M. LAWSON, M. D.,
Dean of the Faculty.

July 1, 1852.—2t.

Palmer's Patent Artificial Leg.

Prize Limb of the World's Exhibition!!

THIS substitute (the invention of B. Frank. Palmer, who himself lost a limb at an early age) differs radically from all other artificial legs; and in form and motion so nearly resembling the natural limb as to effectually conceal the misfortune of the wearer. It has the articulations of knee, ankle and toes, all of which are operated by tendns and springs, (in the interior of the limbs) which perform the functions of the Tendo-Achillis, Flexor, Extensor, and other muscles giving a nature-like elasticity, and rendering the step firm and secure in walking. This limb is applied, with great success, to the shortest and tenderest stumps, its excessive lightness, and self-acting quality fitting it peculiarly for such cases. About five hundred of these limbs are now in constant use, consequently the inventor, and Proprietor, can speak from an experience which no other manufacturers have had, and they do not know of any person using a limb of any other construction, who has had one of Palmer's Patent; and they are now almost constantly fitting limbs for persons well supplied, in numbers, with those of every other construction.

The Inventor has been honored with twenty gold and silver medals, or FIRST PREMIUMS, at the great Annual Exhibitions in New York, Philadelphia, Boston and Baltimore, and has NEVER, in a single instance, failed in receiving the HIGHEST award, when there has been competition.

Mr. Palmer having perfected his invention in the year 1850, and established its pre-eminence over all others in this country, determined to present it at the World's Exhibition, in London.

The Jury on Surgical Instruments and Artificial Limbs then consisted of Wm. Lawrence, F. R. S., President of the Royal College of Surgeons; Joseph H. Green, F. R. S., and Mr. Philip, of London; M. Roux, Surgeon to the Hotel Dieu; M. Lallemand, member of the Institute, Paris; and Dr. Chadbourne, of the United States. The best English, French, and German Limbs were exhibited in competition, and yet PALMER'S PATENT LEG was UNANIMOUSLY declared, by this learned body, to be "*decidedly the best artificial leg exhibited,*" and Mr. Palmer was, accordingly, awarded the MEDAL.

☞ The following certificate is from Dr. Guthrie, late President of the Royal College of Surgeons, London. Similar expressions from Sir Benj. Brodie, and others, were received:

"LONDON, September 30th, 1851.

SIR—I have no hesitation in stating that I consider your Patent Artificial Leg to be the best invention I have yet seen—the most useful and the least distinguishable from the natural limb.

I am, sir, your very obedient servant,

B. FRANK. PALMER, Esq. G. J. GUTHRIE.

"The Patent Artificial Leg of Mr. Palmer is a most ingenious, admirable, and philanthropic contrivance. It is far superior to all others that have yet been invented. The peculiar characteristics of this limb are life-like elasticity and flexibility, excessive lightness, durability, adaptability, and perfection of exterior appearance."—*London Lancet, Jan.* 3, 1852.

"If our cousins beat us in Yacht-Building, they are equally pre-eminent in the manufacture of Artificial Legs. The Patent Leg of Mr. Palmer cannot fail to be regarded as a great boon to suffering humanity."—*London Times, Sept.* 19, 1851.

NEW YORK, January 28, 1851.

I have seen several of the Artificial Legs, manufactured by B. F. Palmer, in use, and consider them superior to any with which I am acquainted. W. PARKER, M. D.,

Prof. of Surg. College of Physicians and Surgeons, N. Y.

I have examined, carefully, the Artificial Leg, manufactured by Mr. B. Frank. Palmer, of this country. Its construction is simple, and its execution is beautiful; and, what is more important, those who have the misfortune to require a substitute for the natural limb, and the good fortune to possess it, all concur in bearing practical testimony to its superiority in comfort and utility.

VALENTINE MOTT,

Professor of Surgery in the New York University.

New York, Jan. 29, 1851.

PHILADELPHIA, March 27, 1851.

I have examined, with great care, the Artificial Leg invented by Mr. B. F. Palmer, and do not hesitate to recommend it in the *strongest terms*. It has been used by several of my patients, and with entire satisfaction. THOS. D. MUTTER, M. D.,

Prof. of Surgery in Jefferson College, Philadelphia.

I am acquainted with B. F. Palmer, the inventor and manufacturer of the artifical leg above adverted to. His natural mechanical genius was brought into requisition in fitting for himself an artificial leg, which performs its operations so perfectly that no one can tell which is the artificial, or which the natural leg, without its exposure and a critical inspection. I saw a model of it in the World's Great Exhibition, where it attracted universal admiration, and drew the first prize. It is the best thing of the kind I have ever seen, and can but please—*perfectly please*, those who are compelled to resort to such an apparatus. R. L. HOWARD, M. D.,

Professor of Surgery.

Advice, by letter or otherwise, and pamphlets, having full instructions, sent gratis.

All communications from New York and New England, should be addressed to PALMER & COMPANY, Springfield, Mass. All others to B. FRANK. PALMER,

March, 1852. 376 Chestnut street, Philadelphia.

J. & R. T. COOK,

WHOLESALE AND RETAIL DRUGGISTS,

OPPOSITE THE CAPITOL HOUSE,

COLUMBUS, OHIO.

HAVING just commenced the Drug business in the city, they would respectfully invite the attention of Physicians of Columbus and surrounding country, to their large and well-selected stock of

DRUGS, MEDICINES AND CHEMICALS,

Embracing every article in the Materia Medica, used by physicians, which they have just purchased in eastern markets, and offer at very low prices; all of which are warranted to be perfectly pure.

Below, we give a list of a few of the leading articles:

DRUGS AND MEDICINES.

Opium, (best Turkey,)
do pow'd, " "
Rhubarb, " "
do pow'd, " "
Ipecac, pow'd,
Jalap, do
Dover's Powder,
Glycerim,
Cod-liver Oil, (Rushton, Clark & Co.)
Ergot, (good.)
Oil of Ergot,
do Cubebs,
Oil of Coparba,
Solidified Bals. Copaiva,
Cinchonia, in oz. bottles,
Cinchona Flava,
do Red,
Lapulin,
Elaterium,
H. H. & Inspected Extracts.

☞ All Syrups, Tinctures, &c., are prepared, full strength, according to U. S. Dispensatory.

CHEMICALS.

Iodide of Iron,
do Sulphur,
do Potassuem,
do Arsenic,
do Lead,
Iodine, (Sublimed,)
Syrup Iodide of Iron (strength U. S. D.
Solution do do
Valerianaie of Iron,
do Quinine,
Sulphate of Quinine,
Calomel, (English,)
Nit. Silver, (stick and crystalized,)
Collodion,
Valevianate of Zinc,
Hydrated peroxide of Iron, (antidote for arsenic,)
Morphia Sulphate,
do Muriate,
do Acetate,
Ferri Citras,
do do et Quinia,
do Lactas,
do Cyanide,
Peperim,
Tanin,
Phosphate of Lime, (Pure,)
Bismuth Sub. Nit.
Chinoidine,
Pricip. Extract of Bark.
Chloroform,
Choric Ether.

We also keep constantly on hand, a full supply of perfectly pure Chemical Regents, made expressly for analitical purposes, which we manufacture ourselves, and warrant to be as represented.